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ABSTRACT

Women who had no health insurance or who were enrolled in Medicaid were interviewed to determine the extent of their prenatal care. Those most likely to obtain insufficient care were the women who were uninsured, poorly educated, Black or Hispanic, or teenagers from large urban areas. Barriers to earlier or more frequent prenatal care were the following: (1) lack of money to pay for the care; (2) lack of transportation to the health care provider; and (3) unawareness of pregnancy. More research is needed on the provision of prenatal care especially for poor urban populations. It is recommended that Medicaid eligibility be expanded to reduce lack of money as a barrier. Block grants should be awarded for the development of local prenatal care services. Appendices, tables, and figures provide the statistical information that informs the conclusions. (VM)

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United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Human Resources and Intergovernmental Relations, Committee on Government Operations, House of Representatives

September 1987

PRENATAL CARE

Medicaid Recipients and Uninsured Women Obtain Insufficient Care

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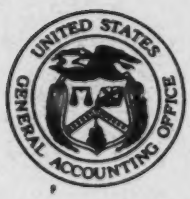

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United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

B-229112

September 30, 1987

The Honorable Ted Weiss
Chairman, Subcommittee on Human
Resources and Intergovernmental
Relations
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

This report is in response to your October 25, 1985, request that we determine the extent to which Medicaid beneficiaries and uninsured women may be experiencing difficulties in obtaining access to prenatal care. It contains the results of our interviews with 1,157 Medicaid-enrolled and uninsured women. In addition, it discusses options for improving access to prenatal care.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will provide copies to the Secretary of Health and Human Services, the Director of the Office of Management and Budget, and other interested parties.

Sincerely yours,

Richard L. Fogel
Assistant Comptroller General

Executive Summary

Purpose

More than $2.5 billion is spent annually on neonatal intensive care services in the United States, primarily for low birth-weight babies. Early and continuing prenatal care plays an important role in preventing low birth weight and infant mortality. Babies born to women who received no prenatal care are three times more likely to be of low birth weight than those whose mothers received early care. Also, low birth-weight babies are about 40 times more likely to die during the first 4 weeks of life than normal birth-weight babies.

Adequate prenatal care is especially important for low-income, minority, and adolescent women who are regarded as medically high-risk groups. According to the National Academy of Sciences' Institute of Medicine, for every dollar spent on prenatal care for high-risk women, over three dollars could be saved in the cost of care for low birth-weight infants.

In response to a request from the Chairman of the Subcommittee on Human Resources and Intergovernmental Relations, House Committee on Government Operations, GAO interviewed 1,157 women in 32 communities in 8 states (see table I.1) to determine (1) the timing and number of their prenatal care visits and (2) the barriers they perceived as preventing them from obtaining care earlier or more often.

The women interviewed either had no health insurance or were enrolled under the Medicaid program (a federally aided, state-run medical assistance program for low-income persons).

Background

According to the American College of Obstetricians and Gynecologists, every pregnant woman should begin a comprehensive program of prenatal care as early in the pregnancy as possible. A woman with a typical 40-week pregnancy should see a doctor or other health care provider about 13 times, women with medical complications more often.

In 1984, 17 percent of women of reproductive age lacked insurance to pay for prenatal care and another 9 percent had only Medicaid coverage, according to a study based on census data. In addition to Medicaid funds, federal financing for prenatal services is also available to states and communities through Maternal and Child Health block grants.

As of 1985, the United States had made virtually no progress in meeting goals set in 1980 by the Surgeon General for (1) reducing the percentage of babies born with low birth weight to no more than 5 percent of live

births and (2) ensuring that 90 percent of all pregnant women obtain care within the first 3 months of pregnancy.

Results in Brief

Of the women interviewed, about 63 percent obtained prenatal care that GAO deemed insufficient because they did not begin care within the first 3 months of their pregnancy or made eight or fewer visits for care. Insufficient prenatal care was a problem for women of all childbearing ages, of all races, and from all sizes of communities. Compared with a group of women with private health insurance, Medicaid recipients and uninsured women began care later and made fewer visits. While 6.8 percent of births nationwide are of low birth weight, 12.4 percent of the babies born to the women GAO interviewed were of low birth weight.

Barriers to earlier or more frequent prenatal care varied according to such factors as age, race, and size of community, with about half of the women citing multiple barriers. Three barriers predominated in virtually every demographic group of women—lack of money to pay for care, lack of transportation to the provider of care, and unawareness of pregnancy. The importance of these and other barriers differed, however, by community.

A comprehensive effort is needed to identify the primary barriers in a community, develop programs to overcome those barriers, and evaluate their effectiveness in improving access to prenatal care. Although the solutions must be designed to meet the needs of individual communities, federal funds are available to assist states and communities in such efforts. Further, money spent to expand prenatal care services should be more than offset by decreased newborn intensive-care costs.

Principal Findings

Care Often Obtained Too Late or Too Infrequently

The percentage of Medicaid recipients and uninsured women who had insufficient care ranged from 14 percent in Kingston, New York, to 82 percent in Montgomery, Alabama. In 20 of the 32 communities GAO studied, 50 percent or more of the interviewed women had insufficient care.

Most likely to obtain insufficient prenatal care were women who were uninsured, poorly educated, black or Hispanic, teenagers, or from the largest urban areas. Most likely to obtain adequate care were women

who were in rural communities, well educated, white, in their early 30's, or Medicaid recipients. (See pp. 19 to 27.)

Privately Insured Women Obtain Care Earlier, More Often

Comparing a group of privately insured women with GAO's study group of Medicaid recipients and uninsured women (both groups without medical complications and from the same 32 communities), GAO found that the privately insured women were much more likely to begin care early in the pregnancy and see a health care provider frequently. Overall, 81 percent of the privately insured women began care in the first 3 months of their pregnancy and made nine or more visits for care compared with 36 percent of the women with Medicaid coverage and 32 percent of women with no health insurance. Only 2 percent of privately insured women began care during the last 3 months of pregnancy or made four or fewer visits compared with 16 percent of the Medicaid recipients and 24 percent of the uninsured women. (See pp. 27 to 31.)

Lack of Money a Problem

Lack of money was cited as the most important barrier to earlier or more frequent prenatal care by 17 percent of women who obtained insufficient care. The availability of free prenatal care appears to significantly reduce the importance of this barrier. Women who can obtain free care under Medicaid were less likely to cite lack of money as a barrier (10 percent) than uninsured women where the availability of free care was more limited (23 percent). Also, in communities that provide free care to uninsured women, the importance of this barrier was reduced. (See pp. 38 to 39.)

Few Proven Prenatal Programs

The states and communities GAO visited had a wide range of initiatives for improving access to prenatal care (see app. XIV), but there was little information on their effectiveness. Although the Maternal and Child Health block grant program has funded demonstration projects designed to improve access to prenatal care, their results often were not widely disseminated. (See pp. 58 to 62.)

Expanded Medicaid Eligibility

As of June 1987, 19 states had expanded Medicaid eligibility to pregnant women with incomes of up to 100 percent of the federal poverty level, an option authorized by the Omnibus Budget Reconciliation Act of 1986. States doing so could significantly reduce lack of money as a barrier to prenatal care, particularly in the southeast, where many people with low incomes are not eligible for Medicaid. No states had implemented

presumptive eligibility—providing free care while a woman's application for Medicaid is being processed—also allowed by the Act.

If all states fully implemented the Act's provisions for expanded Medicaid coverage of pregnant women, the fiscal year 1987 cost would be about $190 million, the Congressional Budget Office estimated. But, the Committee on the Budget, House of Representatives, reported that such costs should be offset by savings from reduced intensive care and long-term institutional costs. Professional services associated with prenatal care cost an estimated $400 (excluding labor and delivery costs) compared with newborn intensive care costs averaging about $14,700 for each low birth-weight infant. (See pp. 47 to 51.)

Increasing Medicaid Reimbursement

Some health care organizations suggest that increasing Medicaid reimbursement rates for maternity services would improve access to prenatal care. Few of the women GAO interviewed, however, had problems finding a health care provider to see them. About 61 percent obtained care at a hospital or public health clinic. Although increased reimbursement might expand the choices of providers available to Medicaid-eligible women—an important goal—it would not, in GAO's opinion, improve access to care as much as using limited resources to expand Medicaid eligibility. (See pp. 51 to 55.)

Limited Block Grant Funds

All 19 states and territories surveyed by the Southern Regional Task Force on Infant Mortality said that funds from Maternal and Child Health block grants were insufficient for needed prenatal services. States can more effectively use limited funds by (1) shifting costs currently covered by the block grants to the Medicaid program through expanded eligibility, (2) allocating a greater portion of Maternal and Child Health block grant funds to prenatal care services, or (3) transferring funds from other block grant programs to the Maternal and Child Health program. (See pp. 55 to 58.)

Recommendations

GAO is making several recommendations to the Secretary of HHS to assist states in developing comprehensive programs to improve access to prenatal care for Medicaid recipients and uninsured women. (See p. 66.)

Agency Comments

GAO did not obtain agency comments on a draft of this report.

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Abbreviations

ACOG	American College of Obstetricians and Gynecologists
AFDC	Aid to Families With Dependent Children
COBRA	Consolidated Omnibus Budget Reconciliation Act of 1985
DEFRA	Deficit Reduction Act of 1984
GAO	General Accounting Office
HCFA	Health Care Financing Administration
HHS	Department of Health and Human Services
MCH	Maternal and Child Health
PHS	Public Health Service
SPRANS	Special Projects of Regional and National Significance
SSI	Supplemental Security Income

Introduction

The Chairman of the Subcommittee on Human Resources and Intergovernmental Relations, House Committee on Government Operations, asked us to

- assess the adequacy of prenatal care obtained by Medicaid[1] recipients and uninsured women (in terms of number of visits to a health professional and timing of the first visit);
- identify the barriers women perceive as preventing them from obtaining care earlier or more often; and
- identify federal, state, and local programs to overcome such barriers.

What Is Prenatal Care?

Prenatal care is defined as pregnancy-related health care services provided between conception and delivery. According to the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists (ACOG), prenatal care involves

- monitoring the health status of the woman,
- providing patient information to foster optimal health, good dietary habits, and proper hygiene, and
- providing appropriate psychological and social support.

The health status of the woman is monitored through a series of prenatal care visits to an obstetrician or other health care provider, such as a family practitioner or nurse midwife. These visits provide an opportunity to develop a medical history, perform physical examinations and laboratory tests, establish an expected delivery date, and assess any risks to the pregnancy (such as drug or alcohol abuse or diabetes).

How Much Prenatal Care Is Necessary?

In its prenatal care standards, ACOG recommends that every woman have a comprehensive program of prenatal care beginning as early in the first trimester (3 months) of the pregnancy as possible. According to the standards, a woman with an uncomplicated pregnancy generally should be seen every 4 weeks for the first 28 weeks of pregnancy, every 2 to 3 weeks for the next 8 weeks, and weekly thereafter until delivery. For example, a woman should have approximately 12 prenatal visits for a

[1]Medicaid, authorized under title XIX of the Social Security Act, is a federally aided, state-administered medical assistance program for low-income persons. Depending on a state's per capita income, the federal government pays from 50 to 79 percent of Medicaid costs for health services. At the federal level, the program is administered by the Health Care Financing Administration (HCFA) within the Department of Health and Human Services (HHS).

39-week pregnancy, 13 visits for a 40-week pregnancy, and 14 visits for a 41-week pregnancy.

Women with medical or obstetric problems should be seen more frequently. Because the appropriate intervals for prenatal care visits for such women are based on the nature and severity of the problems, ACOG standards do not specify the number of visits recommended for such complicated pregnancies.

Why Is Adequate Prenatal Care Important?

Infant mortality is a serious problem in the United States. Nearly 40,000 infants born in 1984 died before their first birthday, a rate of 10.8 infant deaths per 1,000 live births. Many industrialized countries have lower infant mortality rates than the United States. For example, according to a 1987 Children's Defense Fund study of infant mortality, the United States was tied for last place among 20 industrialized countries. Specifically, infant mortality ranged from 6 infant deaths per 1,000 live births in Finland, Iceland, and Japan to 11 infant deaths per 1,000 live births in Belgium, the German Democratic Republic, the Federal Republic of Germany, and the United States. While infant mortality rates declined in all 20 countries over the past 30 years, the relative ranking of the United States has dropped from sixth to last.

Low birth weight (5.5 pounds or less) is a major determinant of infant mortality. The approximately 254,000 low birth-weight infants (about 6.8 percent of all births) born in 1985 were almost 40 times more likely to die during the first 4 weeks of life than normal birth-weight infants, according to medical experience. Also, 67 percent of infant deaths during the first 4 weeks of life and 50 percent of deaths in the first year of life were attributed to low birth weight. Low birth weight, in addition to increasing the risk of mortality, puts the survivors at increased risk of serious illness or lifelong handicaps.

Early and continuing prenatal care plays an important role in preventing low birth weight and poor pregnancy outcomes. According to the HHS, about 80 percent of the women at high risk of having a low birth-weight baby can be identified in the first prenatal visit, and interventions can be made to reduce the risks. Babies born to women who receive no prenatal care are three times more likely to be of low birth weight than babies born to women who receive early care. For example, the National Center for Health Statistics reported that in 1985 the low birth weight rate was 18.9 percent among infants born to women with no prenatal care compared with an overall incidence of low birth weight of 6.8

percent. Also, the March of Dimes Birth Defects Foundation has documented nationally that a woman who has 13 to 14 prenatal visits has only a 2 percent chance of having a low birth-weight baby. Without any prenatal care, the risk is over 9 percent. In an Oregon prepaid health care program, officials found that low birth weight, neonatal[2] mortality, and infant mortality were 1.5 to 5 times greater with late, less frequent prenatal care than with early, more frequent care.

Prenatal care is especially important for low-income, minority, and adolescent women, who are regarded as medically high-risk groups. For example, in 1984, teenagers, who accounted for 13 percent of all births, were 1.4 times as likely to give birth to a low birth-weight infant as women in general. Similarly, 12.4 percent of black births were low birth weight compared with 5.6 percent of white births.

How Does Poor Prenatal Care Affect Health Care Costs?

The vast majority of newborn intensive-care costs are incurred for low birth-weight infants. According to the American Academy of Pediatrics, such costs in 1985 totaled $2.4-$3.3 billion and averaged $14,698 for each infant. Recent data collected in four New York hospitals revealed that 745 Medicaid newborns spent an average of 28 days in neonatal intensive care costing an average of $14,287 per case. Also, the costs for lifetime treatment for physical and mental disabilities, which are associated with low birth weight, are estimated to be in the hundreds of thousands of dollars for an individual.

In contrast, the average cost for professional services associated with prenatal care (excluding labor and delivery charges) has been estimated to be about $400. Several studies have found the cost of providing comprehensive prenatal care to be less than the cost of providing medical care associated with poor birth outcome, including neonatal intensive care. For example, the American Academy of Pediatrics reported in 1984 that the cost-benefit estimates ranged from $2 to $10 saved for every dollar spent on prenatal care.

Similarly, the Institute of Medicine estimated in 1985 that, for every $1 spent on prenatal care, $3.38 could be saved in the costs of care for low birth-weight infants. The study focused on a target population of high-risk women who often do not begin prenatal care in the first trimester of pregnancy. It also assumed the low birth-weight rate of this target population, about 11.5 percent, would be reduced to 9 percent.

[2]The neonatal period is the first 4 weeks after birth.

What Progress Has Been Made in Improving Prenatal Care?

In 1980, the Surgeon General of the United States set out specific and quantifiable objectives to improve infant health and reduce infant mortality. Two of these objectives dealt with low birth weight and prenatal care. Specifically, by 1990,

- no more than 5 percent of all live births should be of low birth weight (in no county or racial or ethnic subgroup of the population should more than 9 percent of all live births be of low birth weight) and
- 90 percent of all pregnant women should obtain prenatal care within the first 3 months of pregnancy.

However, as of 1985, the latest year for which data were available, virtually no progress in meeting these two objectives had been made. For example, in 1985 low birth-weight babies constituted 6.8 percent of all live births, and 12.4 percent of black babies were of low birth weight. These percentages are essentially unchanged from those in 1980. In addition, the percentage of women in the United States obtaining prenatal care in the first trimester remained essentially the same from 1980 to 1985 (76.3 versus 76.2 percent, respectively).

How Many Women Have Insurance to Cover Prenatal Care?

The Alan Guttmacher Institute developed a profile of medical coverage among women of reproductive age based on the U. S. Census Bureau's 1984 Current Population Survey. This study found that 17 percent of women aged 15-44 had no health insurance and 9 percent had Medicaid coverage. Young women and black and Hispanic women were more often without insurance. For example, while 17 percent of all women had no insurance, 26 percent of women 18-24 years old had no insurance. Similarly, 23 percent of black women and 26 percent of Hispanic women had no insurance. Higher proportions of black and Hispanic women also tended to be Medicaid recipients. For example, while 5 percent of white women were Medicaid recipients, 25 percent of black women and 17 percent of Hispanic women were Medicaid recipients. A 1985 Alan Guttmacher Institute survey found that about 15 percent of all deliveries are Medicaid-subsidized.

Objectives, Scope, and Methodology

Our primary objectives were to

- assess the adequacy of prenatal care (in terms of number of visits and trimester of the first visit) obtained by women who were enrolled in Medicaid or uninsured;

- identify the barriers women perceive as preventing them from obtaining care earlier or more often; and
- identify federal, state, and local programs to overcome such barriers.

Our work involved

- interviewing 1,157 Medicaid recipients or uninsured women who delivered over a 7-day period in 39 hospitals covering 32 communities in 8 states (see table I.1) using a standardized questionnaire to determine the number and timing of prenatal care visits and the barriers to earlier or more frequent care[3] ;
- validating questionnaire responses relating to number of visits and month of first visit by comparing them with the women's prenatal care medical records;
- sending a questionnaire to a random sample of private-practice physicians or other prenatal care providers in the 32 communities studied to obtain data on the timing and number of prenatal care visits obtained by privately insured women;
- obtaining assistance from officials from ACOG, the Institute of Medicine, the Alan Guttmacher Institute, and the Children's Defense Fund in developing our approach and methodology and interpreting the results;
- interviewing HHS and state and local officials to identify barriers to prenatal care and programs to overcome those barriers; and
- reviewing literature to determine the importance of prenatal care and programs to overcome barriers to care.

The 32 communities in 8 states were selected to provide a mix of rural, medium-sized urban, and large metropolitan areas in different parts of the country. The 39 hospitals were selected as the site of our interviews because they accounted for a large percentage of the deliveries of Medicaid-enrolled and uninsured women in the communities. The hospitals, which voluntarily agreed to assist in our study, did not provide the prenatal care to all of the women who delivered there, and the results of the interviews do not in any way reflect on the adequacy or quality of services provided by the 39 hospitals. Because of the way the hospitals and communities were selected, our findings cannot be projected beyond the women interviewed in each community. Additional details on the objectives, scope, and methodology of our review are contained in appendices I, II, and III. Appendix I details our work steps; appendix II presents the questionnaire including the total number of responses to

[3]Interviews were conducted between August 1986 and February 1987.

each question, and appendix III presents the form used to obtain each woman's consent to participate in the study.

We did our work between July 1986 and June 1987 in accordance with generally accepted government auditing standards, except that we did not, at the request of the subcommittee, obtain agency comments on a draft of this report.

Most Medicaid Recipients and Uninsured Women Did Not Obtain Early and Frequent Prenatal Care

About 63 percent of the Medicaid recipients and uninsured women we interviewed in 32 communities in 1986-87 did not begin their care early enough and/or did not return for care often enough. For women without medical complications, 81 percent of privately insured women in the 32 communities received adequate prenatal care compared with 36 percent of Medicaid recipients and 32 percent of uninsured women. A key problem was that Medicaid recipients and uninsured women generally began care later in their pregnancy than privately insured women. Specifically, over 87 percent of Medicaid recipients and uninsured women who did not receive adequate care had their first prenatal care visit in the second or third trimester or received no prenatal care.

Although this problem existed in all demographic groups analyzed and in all communities studied, it was more significant in some groups and communities. Specifically, women who were black, Hispanic, under 20 years of age, uninsured, or from the largest urban areas or who had 8 or fewer years of education were most likely to begin care late and/or make too few visits.

Criteria for Assessing the Adequacy of Prenatal Care

The Institute of Medicine prenatal care index[1] (developed by D. Kessner) classifies the adequacy of prenatal care by the number of prenatal visits in relation to the duration of the pregnancy[2] and the timing of the first visit. Basically, according to this widely used index, a woman's prenatal care is classified as

- adequate if it begins in the first trimester and includes nine or more visits for a pregnancy of 36 or more weeks,[3]
- intermediate if it begins in the second trimester or includes five to eight visits for a pregnancy of 36 or more weeks, and
- inadequate if it begins in the third trimester or includes four or fewer visits for a pregnancy of 34 or more weeks.

[1] Institute of Medicine, Infant Death: An Analysis by Maternal Risk and Health Care. Contrasts in Health Status, Vol. 1, ed. by D. M. Kessner (Washington, D.C.: National Academy of Sciences, 1973), pp. 58-59.

[2]This adjustment for duration of pregnancy is important because women who deliver prematurely have fewer prenatal visits than those who deliver at full term, even if they follow the recommended visit schedule.

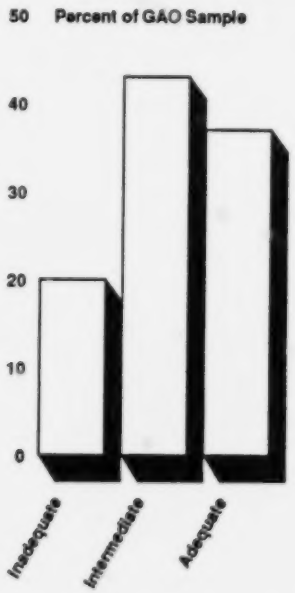
[3]Pregnancies of 36 or more weeks account for about 93.5 percent of all births.

In this report, we describe as "insufficient" prenatal care obtained by women whose care would be classified as either "inadequate" or "intermediate" under the Institute of Medicine's prenatal care index. In other words, any woman with eight or fewer visits[4], or who began her care in the second or third trimester is categorized as obtaining insufficient prenatal care. The prenatal care index is further explained in appendix I.

Most Medicaid Recipients and Uninsured Women Obtain Insufficient Prenatal Care

About 63 percent of the 1,157 Medicaid recipients and uninsured women we interviewed in 32 communities obtained insufficient prenatal care (see fig. 2.1). They started care too late (fig. 2.2) and/or did not make the recommended number of visits (fig. 2.3). Of the 1,157 women, 230 (20 percent) obtained inadequate care, 496 (43 percent) intermediate care, and 431 (37 percent) adequate care as defined by the prenatal care index.

Figure 2.1: Adequacy of Prenatal Care Obtained by 1,157 Medicaid Recipients and Uninsured Women (1986-87)



Note: Includes women with both complicated and uncomplicated pregnancies.

[4]Women with pregnancies of fewer than 36 weeks could have had fewer than eight visits and still obtained an adequate level of care as shown in appendix I. However, only 13 women with eight or fewer visits and a pregnancy of less than 36 weeks obtained adequate care.

Figure 2.2: Timing of First Prenatal Visit by 1,157 Women (1986-87)

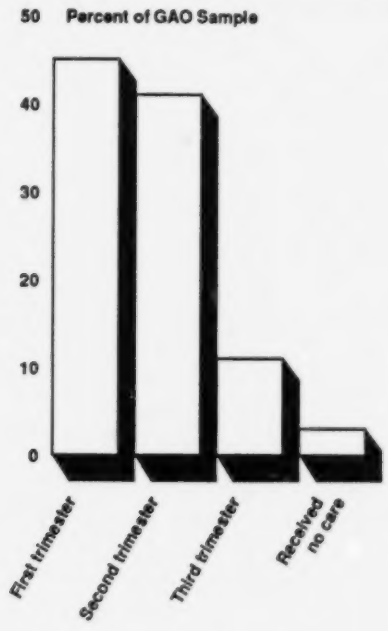
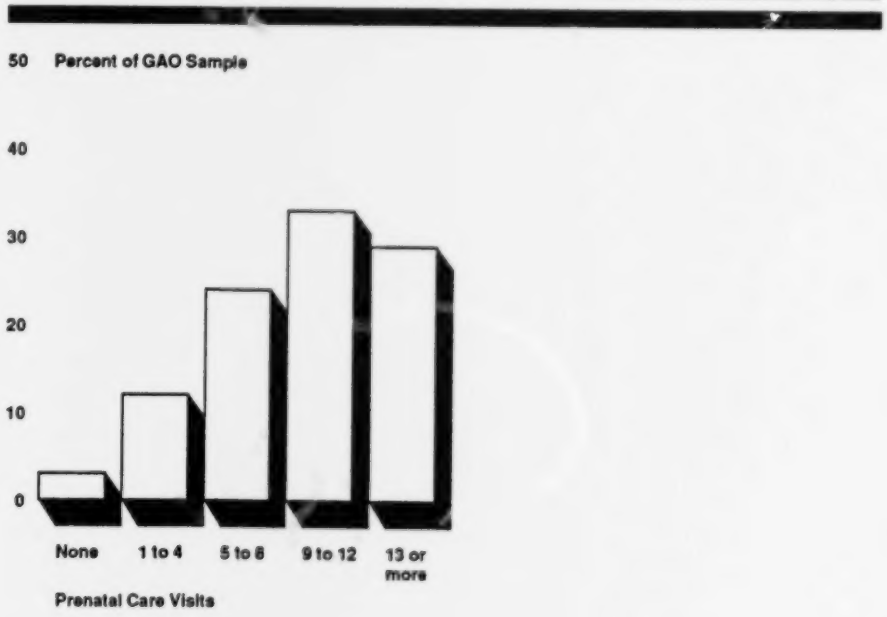


Figure 2.3: Numbers of Prenatal Care Visits Made (1986-87)



Of the babies born to these women, 12.4 percent were of low birth weight. Nationwide, 6.8 percent of all births are of low birth weight.

Adequacy of Care, by Community

The percentage of women we interviewed who had insufficient prenatal care ranged from 14 in Kingston, New York, to 82 in Montgomery, Alabama (see table 2.1). In 20 of the 32 communities, 50 percent or more of the interviewed women had insufficient care. In six communities (Montgomery and Selma, Alabama; Brunswick and Savannah, Georgia; New York City; and Los Angeles), 75 percent or more of the women had insufficient care. This table reflects the prenatal care for interviewed women and is not projectable to the universe of women giving birth in those communities.

Table 2.1: Proportion of Medicaid Recipients and Uninsured Women Having Insufficient Care, by Community

Community	Percent of women having insufficient care	Total no. of women interviewed
Montgomery, Alabama	82	22
Brunswick, Georgia	79	24
Savannah, Georgia	78	23
New York, New York	76	84
Selma, Alabama	76	45
Los Angeles, California	75	212
Huntsville, Alabama	74	19
Chicago, Illinois	72	65
Atlanta, Georgia	69	95
Bakersfield, California	69	39
Troy, Alabama	67	24
Charleston, West Virginia	66	38
Columbus, Georgia	65	26
Buffalo, New York	63	16
Birmingham, Alabama	57	35
Clarksburg, West Virginia	56	16
El Centro, California	53	19
Bluefield, West Virginia	51	39
Ukiah, California	50	18
Sacramento, California	50	26
Boston, Massachusetts	49	51
Americus, Georgia	48	23
Carbondale, Illinois	47	38
Mattoon, Illinois	47	17
Rockford, Illinois	44	34
Peoria, Illinois	42	19
Bangor, Maine	40	10
Auburn, New York	38	16
Syracuse, New York	38	16
Huntington, West Virginia	24	25
Augusta, Maine	22	9
Kingston, New York	14	14
Total	**63**	**1,157**

Communities with higher percentages of women having insufficient care were generally in the Southeast, while those with the lowest percentages were generally in New York or Maine.

A comparison of the adequacy, timing, and number of prenatal visits made by Medicaid recipients and uninsured women interviewed at each of the 39 hospitals participating in our study appears in appendix IV.

Adequacy of Care, by Selected Factors

The percentage of women who had inadequate or intermediate prenatal care varied according to such factors as age, race, education, and insurance status (see app. V). Generally, those most likely to have inadequate or intermediate prenatal care were women who were uninsured, poorly educated, black or Hispanic, teenagers, or from the largest urban areas. Most likely to have adequate care were women in rural communities and women who were well-educated, white, in their early 30's, or on Medicaid.

Specifically, women were more likely to obtain an insufficient level of care if they

- were uninsured (67 percent) rather than covered by Medicaid (59 percent);
- lived in the largest urban areas (71 percent) rather than in another urban community (58 percent) or rural area (54 percent);
- were teenagers (69 percent) or 35 years old or over (66 percent) rather than in another age group (53-64 percent);
- were Hispanic (71 percent) or black (70 percent) rather than white (49 percent); or
- had an 8th grade education or less (73 percent) rather than some high school (67 percent), a high school diploma (60 percent), or college experience (53 percent).

Similar differences by demographic group occurred with respect to (1) the trimester care began (see app. VI) and (2) the number of prenatal visits made (see app. VII). The care obtained by women in selected demographic groups is profiled according to the remaining demographics in appendix VIII. Finally, the 30 women who obtained no prenatal care were generally uninsured minority women from large urban areas (see app. IX).

Medicaid Recipients and Uninsured Women Often Began Care Late

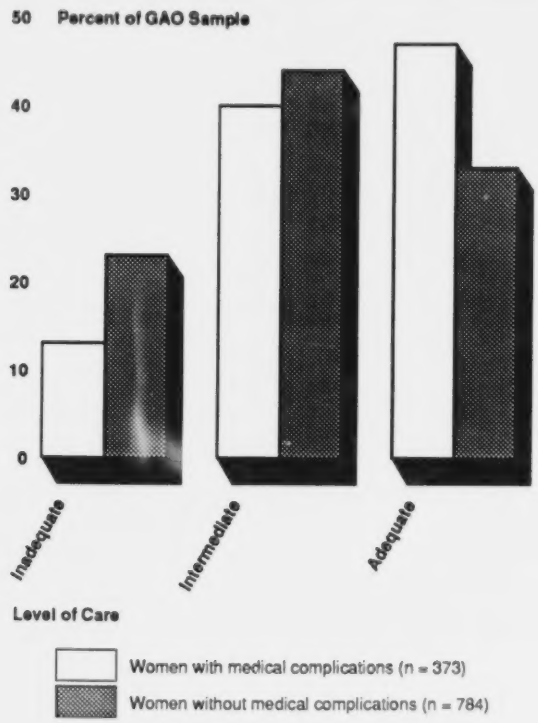
Women who had insufficient prenatal care generally started their prenatal care late. Specifically, 58 percent of the women surveyed with insufficient prenatal care began care in the fifth month or later or obtained no care. Another 29 percent began care in the fourth month. Officials told us that a major prenatal care concern was getting women

into the health care system early in their pregnancies. A majority of women also made eight or fewer visits for care. Specifically, 438 or 60 percent of those who had insufficient care made eight or fewer visits. Also, 174 or 24 percent of these women made four or fewer visits. The number of visits and month of first visit for the 726 women obtaining insufficient care is shown in table X.1. Additional details on the number of visits made in relation to the timing of the first visit also are provided in appendix X.

Care for Complicated and Uncomplicated Pregnancies Differs

The 1,157 women interviewed included 784 with uncomplicated pregnancies and 373 with self-reported medical complications. As shown by figure 2.4, over 50 percent of the women both with and without medical complications obtained insufficient care.

Figure 2.4: Adequacy of Prenatal Care Obtained, by Medical Complications (1986-87)



Although it would appear from figure 2.4 that women with medical complications were more likely to have adequate prenatal care, that was not necessarily the case. Women with medical complications need care more often than women without medical complications. Because there are no established criteria for the number of visits needed by women with medical complications however, we assessed the adequacy of their care against the criteria for a normal pregnancy. This tends to overstate the adequacy of care obtained by these women.

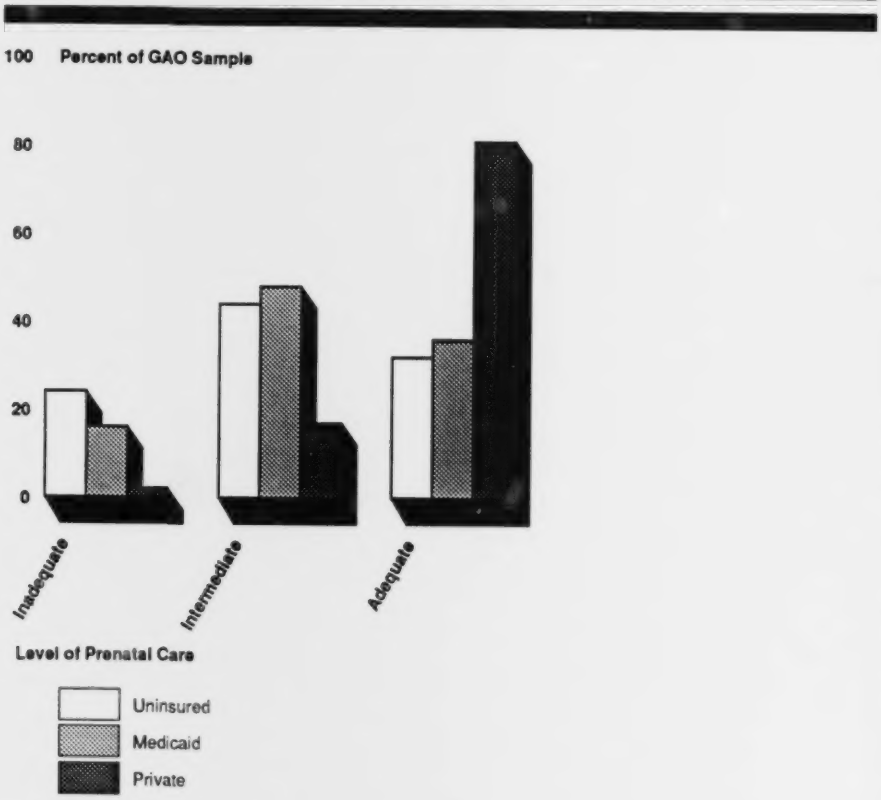
Privately Insured Women With Uncomplicated Pregnancies Obtain Earlier, More Frequent Care

For uncomplicated pregnancies,[5] privately insured women in virtually every community we studied obtained earlier and more frequent prenatal care than Medicaid recipients and uninsured women. About 16 percent of Medicaid recipients and 24 percent of uninsured women without medical complications interviewed in the 32 communities obtained inadequate care (see fig. 2.5), as defined by the Institute of Medicine index, compared with only 2 percent of the privately insured women for whom similar data were obtained from physicians. Another 48 percent of Medicaid recipients and 44 percent of uninsured women interviewed in the 32 communities obtained intermediate care compared with 17 percent of privately insured women.

In only two communities surveyed (El Centro, California, and Columbus, Georgia) did over 5 percent of privately insured women obtain inadequate care. In only six communities (Sacramento and Ukiah, California; Bangor, Maine; Kingston and Auburn, New York; and Huntington, West Virginia) did 5 percent or less of Medicaid recipients and uninsured women obtain inadequate care. In only one community (Troy, Alabama) did less than 60 percent of privately insured women obtain adequate care (all four of the women obtained care classified as intermediate), while in only five communities (Augusta and Bangor, Maine; Auburn and Kingston, New York; and Huntington, West Virginia) did over 60 percent of Medicaid recipients and uninsured women obtain adequate care. In all but two communities (Kingston, New York and Troy, Alabama), a higher percentage of privately insured women obtained adequate care. Appendix XI provides additional details.

[5]We excluded women with complicated pregnancies from this comparison because the appropriate number of prenatal visits is a matter of medical judgment beyond the scope of our review.

Figure 2:5: Adequacy of Prenatal Care, by Type of Insurance (1986-87)

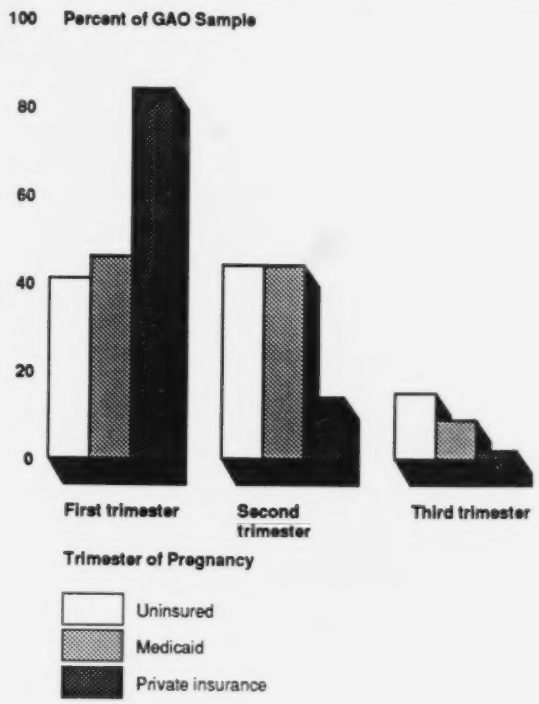


Note: Includes only women with uncomplicated pregnancies.

Privately Insured Women Began Prenatal Care Earlier

Privately insured women generally began their prenatal care earlier than Medicaid recipients and uninsured women in our study, as shown in figure 2.6. Specifically, 84 percent of privately insured women without medical complications began their prenatal care in the first trimester compared with 46 percent of Medicaid recipients and 41 percent of uninsured women. On the other hand, 9 percent of Medicaid recipients and 15 percent of uninsured women waited until the third trimester to begin care compared with only 2 percent of privately insured women.

Figure 2.6:Timing of First Prenatal Visit, by Type of Insurance (1986-87)



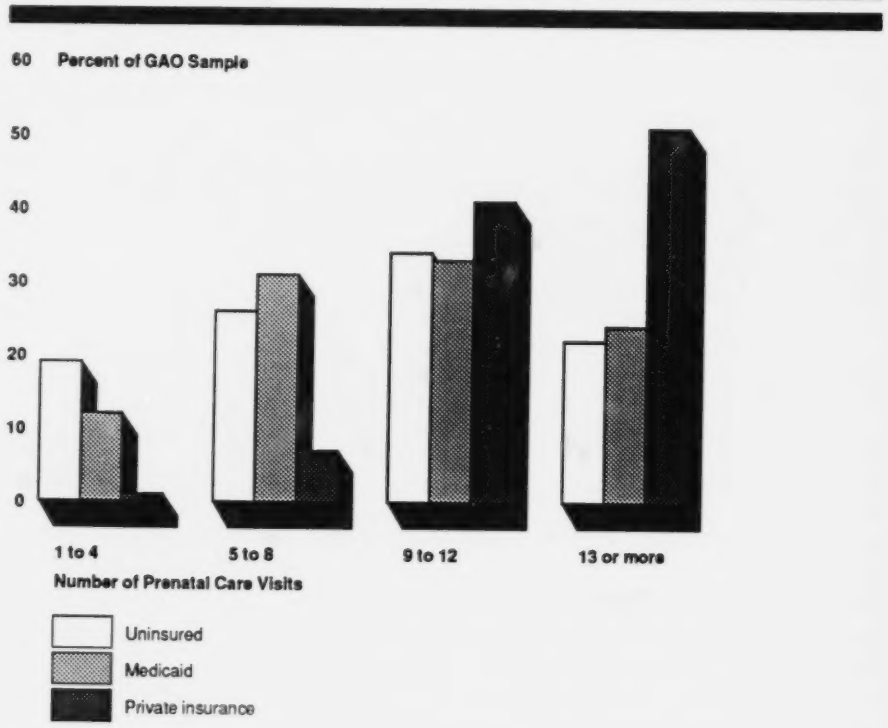
Note: Includes only women with uncomplicated pregnancies.

Viewed by community, privately insured women in virtually all of the 32 communities obtained prenatal care earlier (see app. XI, table XI.2). Only in Troy, Alabama, did a higher percentage of Medicaid recipients and uninsured women we interviewed begin care in the first trimester. However, we were able to obtain data on only four privately insured women in that community, all of whom began care in the second trimester. In only two communities—El Centro, California (6 percent), and Columbus, Georgia (7 percent)—did over 5 percent of the privately insured women begin care in the third trimester. By contrast, over 5 percent of the Medicaid recipients and uninsured women in 20 of the 32 communities began care in the third trimester, including six communities (Huntsville, Alabama; Savannah and Americus, Georgia; Rockford, Illinois; Augusta, Maine; and Buffalo, New York) where 25 percent or more of the women began care in the third trimester.

More Prenatal Visits Made by Privately Insured Women

Privately insured women without medical complications made more prenatal visits for care than did comparable Medicaid recipients and uninsured women, as figure 2.7 shows. For example, the average number of visits for Medicaid recipients and uninsured women was 9.2, while privately insured women made an average of 12.5 visits, or 36 percent more. While 12 percent of Medicaid recipients and 19 percent of uninsured women made only one to four visits, 1 percent of privately insured women made four or fewer visits. Finally, 24 percent of Medicaid and 22 percent of uninsured women made 13 or more prenatal visits, compared with 51 percent of privately insured women.

Figure 2.7: Number of Prenatal Care Visits Made, by Type of Insurance (1986-87)



Note: Includes only women with uncomplicated pregnancies.

In 30 of the 32 communities we visited, the average number of prenatal care visits for privately insured women exceeded the average for Medicaid recipients and uninsured women (see app. XI, table XI.3). Only in El Centro, California, and Kingston, New York, did Medicaid recipients and uninsured women make on average more prenatal care visits than privately insured women. In addition, while 4 percent or less of the privately insured women in each of the 32 communities made one to four visits, over 10 percent of Medicaid recipients and uninsured women in 17 communities made one to four visits, including 3 communities (Montgomery, Alabama; Buffalo, New York; and Bakersfield, California) where over 30 percent in each community made one to four visits.

Wide variations also existed in the percentage of women making 13 or more visits. For example, over 40 percent of privately insured women in all but six communities (Troy, Alabama; Mattoon, Illinois; Bangor, Maine; Kingston, New York; Charleston and Bluefield, West Virginia) made 13 or more visits. But over 40 percent of Medicaid recipients and uninsured women in only seven communities (Birmingham, Alabama; El Centro and Ukiah, California; Bangor, Maine; Auburn, New York; and Huntington and Clarksburg, West Virginia) made 13 or more visits.

Centers for Disease Control Plans Further Study of GAO Data

As part of our review, we gathered data from health care provider records on the dates of all prenatal care visits made by about 850 Medicaid recipients and uninsured women. Previously, such extensive information on the timing of prenatal visits was unavailable. The Centers for Disease Control of the Public Health Service (PHS) plans to use the data to conduct a major epidemiological study comparing the sequencing of the women's visits with various demographic and birth outcome factors.

Summary

Privately insured women obtained significantly earlier and more frequent prenatal care than Medicaid recipients and uninsured women in the 32 communities studied. Overall, 81 percent of privately insured women obtained adequate care compared with 36 percent of Medicaid recipients and 32 percent of uninsured women. Most likely to begin care late and/or to make eight or fewer visits were women who were teenagers, black, Hispanic, from the largest urban areas, poorly educated, or uninsured.

Most Common Barriers to Prenatal Care

About half of the women interviewed cited multiple barriers to earlier and more frequent prenatal care. The most important barriers noted were lack of money to pay for care, lack of transportation to get to the provider's office, and not knowing they were pregnant. Although the relative importance of the barriers varied by demographic group, the same three barriers predominated across all groups. About 18 percent of the women who received insufficient care said they encountered no problems in obtaining earlier or more frequent care, suggesting that they did not fully understand the importance of early and frequent prenatal care.

Women Cite Multiple Barriers

Of the 1,157 women interviewed, about 29 percent cited no problems in obtaining prenatal care. The 817 women who experienced a problem, however, cited a total of 2,488 barriers, about 3 per woman. About a quarter of the women indicated that four or more barriers had prevented them from obtaining prenatal care earlier or more often (see fig. 3.1).

Not unexpectedly, those who obtained care classified as inadequate by the Institute of Medicine prenatal care index were most likely to cite multiple barriers (77 percent) and least likely to say they had no problems in obtaining prenatal care (5 percent). Of those obtaining intermediate care, about 53 percent encountered multiple problems, while about 24 percent had no problems in obtaining care. Finally, 29 percent of women who obtained adequate care indicated that they encountered multiple barriers, but 49 percent had had no problems in obtaining care.

Only two barriers—lack of money to pay for care and not knowing they were pregnant—were cited by 10 percent or more of the interviewed women who obtained adequate prenatal care (see table 3.1). By contrast, 8 barriers were cited by 10 percent or more of the women who received intermediate care and 17 by 10 percent or more of women obtaining inadequate care. Barriers cited most frequently by women who obtained intermediate care were not being aware of the pregnancy (30 percent), not enough money to pay for care (23 percent), and lack of transportation to get to the provider's office (19 percent). Those who obtained inadequate care most frequently cited lack of money to pay for care (41 percent), not being aware of the pregnancy (26 percent), lack of transportation to get to the provider's office (23 percent), and knowing what to do (23 percent) as reasons for not obtaining earlier or more frequent care.

Figure 3.1: Numbers of Barriers to Prenatal Care (1986-87)

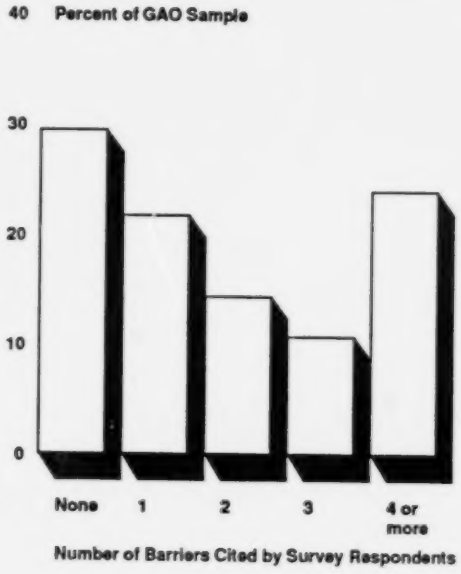


Table 3.1: Barriers to Prenatal Care, by Adequacy of Care (1986-87)

Figures are in percents.

Barriers	Adequacy of prenatal care obtained		
	Adequate	Intermediate	Inadequate
No problems getting checkups	49	24	5
Not aware of pregnancy	18	30	26
Not enough money	12	23	41
No transportation	9	19	23
Could not get an appointment earlier	8	12	17
Knew what to do	6	13	23
Did not want to think about being pregnant	6	11	18
Afraid to find out pregnant	6	8	14
Afraid of medical tests	5	9	13
Did not know where to go	5	9	17
No doctor would see her	5	7	15
Not sure she wanted baby	4	6	15
Not eligible for Medicaid	4	5	7
No care for other children	4	10	16
Did not think it was important	4	7	12
Wait in office was too long	4	11	13
Could not miss work	3	7	7
Had problems with Medicaid	3	8	10
Had too many other problems	3	9	17
Did not want to tell others	3	9	13
Office hours were inconvenient	3	7	5
Other	3	5	6
Did not like doctor's attitude	1	5	7
Could not speak English well	1	1	4
Afraid of problems with immigration	1	1	2
No doctors in area	1	3	5

The barriers to prenatal care identified by women we interviewed at each of the 39 hospitals appear in appendix XII.

Most Important Barriers

In addition to asking women to identify all barriers to earlier or more frequent care, we asked them to identify the most important barrier. Lack of money to pay for care, lack of awareness of the pregnancy, or lack of transportation to the provider's office were cited as the most important barrier to earlier or more frequent care by 276 or 38 percent of the women who obtained insufficient care. Another 18 percent of

women who obtained insufficient care had no problems in obtaining care, they said. A broad range of 22 other barriers accounted for the remaining 322 women's most important obstacle to care. Table 3.2 shows the most important barrier by women who obtained intermediate or inadequate care.

Table 3.2: Most Important Barrier Cited by Women Who Obtained Insufficient Care (1986-87)

Figures are in percents.

Most important barriers	Adequacy of prenatal care	
	Intermediate	Inadequate
No problem getting checkups	24	5
Not aware of pregnancy	17	10
Not enough money	13	23
No transportation	7	7
No care for other children	4	5
Could not get an appointment earlier	4	4
Wait in office was too long	3	2
Knew what to do	3	4
Other	3	3
Did not know where to go	3	3
Did not want to tell others	2	3
Could not miss work	2	1
Did not think it was important	2	3
Had problems with Medicaid	2	2
No doctor would see her	2	4
Had too many other problems	1	3
Not sure she wanted baby	1	5
Afraid to find out pregnant	1	4
Did not like doctor's attitude	1	2
Did not want to think about being pregnant	1	3
Afraid of medical tests	1	2
No doctors in area	1	0
Office hours were inconvenient	0	0
Not eligible for Medicaid	0	0
Could not speak English well	0	0
Afraid of problems with immigration	0	0

Women who obtained inadequate prenatal care were more likely to cite lack of money to pay for care as the most important barrier to earlier or more frequent prenatal care than those who obtained intermediate care (23 versus 13 percent). Women who obtained intermediate care were more likely than those obtaining inadequate care to indicate they did not

know they were pregnant (17 versus 10 percent). Lack of transportation to the provider's office was the third most frequently cited barrier for women receiving both inadequate and intermediate care (7 percent).

Attitudinal barriers such as being afraid of being pregnant, not wanting to tell that they were pregnant, and not being sure that they want a baby were more frequently cited by women who obtained inadequate prenatal care. Although individually each such barrier generally accounted for 5 percent or less of the barriers cited, attitudinal barriers were cited by 39 percent of women who obtained inadequate care compared with 32 percent of those who obtained intermediate care.

Differences in Barriers by Selected Factors

For women who obtained insufficient prenatal care the most important barriers they cited varied according to such factors as their age, race, insurance status, and education; the place (size of community and type of provider) care was obtained; and the number and timing of prenatal care visits. The percentage of women within each group who (1) indicated that they had no problems in obtaining care and (2) cited one of the three most common barriers (lack of money, transportation, or awareness of pregnancy) are shown in table 3.3.

Table 3.3: Most Important Barrier for Women Who Obtained Insufficient Care, by Demographics (1986-87)

			Barrier					
	No problem		Not enough money		Not aware of pregnancy		No transportation	
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total	**128**	**18**	**120**	**17**	**106**	**15**	**50**	**7**
Insurance status:								
Medicaid	73	20	36	10	51	14	35	10
Uninsured	55	15	84	23	55	15	15	4
Community type:								
Largest urban	59	16	62	17	44	12	14	4
Urban	37	18	26	13	39	19	17	8
Rural	32	20	32	20	23	14	19	12

(continued)

Demographic factor	No problem		Barrier: Not enough money		Barrier: Not aware of pregnancy		Barrier: No transportation	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Maternal age:								
17 or under	14	16	8	9	17	20	6	7
18-19	17	14	19	16	18	15	7	6
20-24	48	18	48	18	40	15	19	7
25-29	27	17	27	17	22	13	12	7
30-34	13	21	13	21	5	8	6	10
35 or older	9	27	5	15	4	12	.	.
Race:								
White	37	18	38	18	32	16	20	10
Black	57	21	28	10	45	17	22	8
Hispanic	33	14	53	22	26	11	8	3
Other	1	9	1	9	3	27	.	.
Education:								
0-8 grades	11	9	35	29	15	13	8	7
Some high school	45	16	30	11	34	12	23	8
Graduated high school	48	23	33	16	30	14	14	7
College	24	19	22	17	27	21	5	4
Place of most care:[a]								
Hospital clinic	41	23	18	10	32	18	7	4
Local health dept.	42	16	41	16	36	14	16	6
Doctor's office	41	20	42	21	27	13	22	11
Midwife service	1	25	.	.	1	25	.	.
Combination/other	3	6	10	19	8	15	5	10
Birth weight:								
Not low	110	17	108	17	89	14	43	7
Very low or low	18	19	12	13	17	18	7	7
Trimester care began:								
First	23	25	16	18	5	5	10	11
Second	97	20	67	14	86	18	32	7
Third	8	6	28	22	13	10	8	6
No care	.	.	9	30	2	7	.	.
No. of prenatal visits:								
0	.	.	9	30	2	7	.	.
1-4	9	6	32	22	10	7	13	9
5-8	45	17	44	17	35	13	22	8
9-12	43	22	25	13	43	22	7	4
13+	31	33	10	11	16	17	8	9

Note: Only includes most important barriers reported by more than 5 percent of women receiving insufficient care.

[a]Does not include women who received no prenatal care.

Insurance Status

Compared with Medicaid recipients, who generally receive free prenatal care, uninsured women more frequently cited the lack of money to pay for prenatal care as the most important barrier to their obtaining care earlier or more often (23 versus 10 percent). Medicaid recipients, however, were more likely to cite transportation as the most important barrier (10 versus 4 percent). In addition, Medicaid recipients were more likely than uninsured women to indicate they had no problems in obtaining prenatal care (20 versus 15 percent). About 15 percent of both Medicaid recipients and uninsured women said not knowing they were pregnant was the most important barrier.

For uninsured women, the availability of free care may in part explain differences among communities with respect to lack of money as a barrier to prenatal care. For example, about 86 percent of the interviewees at Cooper Green Hospital in Birmingham, Alabama, where free prenatal care is available through the public health department, were uninsured mothers. Yet, none of these women who received insufficient care cited lack of money as their most important barrier.

By contrast, about 27 percent of the women delivering at Los Angeles County-USC Medical Center who obtained insufficient care cited lack of money as the most important barrier. About 94 percent of the births at the hospital were to uninsured mothers. Los Angeles county clinics charge $20 per visit for the first seven prenatal care visits.

Similar differences occurred within the state of Georgia. More than 58 percent of the women we interviewed in both Columbus and Brunswick were uninsured. However, none of the women we interviewed in Columbus who had insufficient care (65 percent of the women interviewed) cited lack of money as the most important barrier. Free care was available from the local health department, whose clinics provided about 65 percent of the prenatal care visits. By contrast, about 53 percent of the women we interviewed in Brunswick who obtained insufficient care (79 percent of those interviewed) cited lack of money as the most important barrier. Unlike Columbus, in Brunswick the public health clinic provided some free prenatal care, but the clinic generally referred Medicaid recipients and uninsured women to private physicians where they were charged for their prenatal visits.

Lack of money was generally not a significant barrier to prenatal care for women we interviewed in West Virginia. Under that state's Maternity Services Program, funded under a Maternal and Child Health block grant, prenatal care is provided to uninsured women whose income is

150 percent or less of the federal poverty level. Only about 5 percent of the uninsured women we interviewed at West Virginia hospitals who had obtained insufficient care cited lack of money as the most important barrier.

Transportation was cited more frequently as the most important barrier by women in Alabama and West Virginia communities, where Medicaid coverage of transportation services is limited or not well publicized. According to state Medicaid officials, the Alabama Medicaid program will not pay for transportation to obtain nonemergency prenatal care services. Of the beneficiaries interviewed in the state, 16 percent cited transportation as the most important barrier. Similarly, transportation was cited as the most important barrier by 15 percent of the women interviewed in West Virginia, even though the state's Medicaid program will pay for nonemergency transportation if prior approval is obtained. But, some of the recipients and local Medicaid officials interviewed were not aware that Medicaid would pay for transportation. The state lacks a brochure informing Medicaid recipients of covered services.

Women we interviewed in Illinois, New York, and Georgia, states that pay for nonemergency transportation services under their Medicaid programs, were less likely to cite transportation problems than those in Alabama and West Virginia.

The inability to get an appointment earlier in their pregnancy also was cited more frequently by uninsured women than by Medicaid recipients (6 versus 2 percent). Other than transportation, the barriers cited more frequently by Medicaid recipients were generally attitudinal (not wanting to think about being pregnant, having too many other problems to worry about getting prenatal care, and not liking the doctor's or nurse's attitudes). Individually, each barrier accounted for about 2 to 3 percent of Medicaid recipients' responses, but combined, attitudinal barriers other than lack of awareness of pregnancy accounted for 23 percent of Medicaid recipients' responses, compared with 16 percent for uninsured women.

Size of Community

Women in rural (12 percent) and midsized urban areas (8 percent) more often cited transportation as the most important barrier to prenatal care than did women in large metropolitan areas (4 percent). Lack of public transportation in most rural and many midsized communities makes it

difficult for women to get to the clinic or doctor's office. This is particularly true in rural areas, where it may be necessary to travel long distances to obtain prenatal care. For example, 25 percent of the women we interviewed who delivered at Bluefield, West Virginia, cited lack of transportation as the most important barrier. According to local officials, many women travel up to 2 hours to obtain prenatal care. Similarly, 38 percent of the women we interviewed at Troy, Alabama, cited lack of transportation as the most important barrier. Troy has no local transportation system other than a special program for senior citizens and selected teenagers 18 years old and under.

Transportation was also a problem in some midsized cities where public transportation did not extend to the surrounding communities. For example, lack of transportation was cited as the most important barrier by 15 percent of the women interviewed in Birmingham, Alabama. According to an official from the Jefferson County (Birmingham) Health Department, bus transportation is not available in all parts of the county, and taxi transportation is too costly for these women. Similarly, nursing staff from the Charleston (West Virginia) Area Medical Center told us that the hospital's clinic serves a patient population within an approximate 60-mile radius. Public transportation serving this area, however, is very limited.

Although a significant barrier in all communities, not being aware of the pregnancy was cited most often (19 percent) in mid-sized cities and least often (12 percent) in the major metropolitan areas. But considerable variation existed between midsized communities in the importance of this barrier. For example, less than 10 percent of the women interviewed in 5 of the 14 midsized communities cited lack of awareness of their pregnancy as the most significant barrier. At the other extreme, over 25 percent of the women interviewed in five other midsized communities cited lack of awareness as the most important barrier. Less variation was noted in the large metropolitan areas, where from 10 to 19 percent of the women interviewed cited lack of awareness as the primary barrier.

Women in rural areas (20 percent) and the largest cities (17 percent) were more likely to cite lack of money as the most important barrier to prenatal care than were women in midsized cities (13 percent). As discussed on pages 38 to 39, the availability of free care in some communities appears to contribute to wide variation in the percentage of women citing lack of money as the most important barrier.

The percentage of Medicaid recipients and uninsured women who obtained insufficient care but indicated that they experienced no particular problems in obtaining prenatal care did not differ significantly by size of community. Differences did exist, however, on a geographic basis, with women in communities in Alabama, Georgia, Maine, New York, and West Virginia more often saying that they experienced no problem in obtaining needed care.

Although not an important barrier in most communities, the inability to get an appointment earlier in their pregnancy was cited as the most important barrier by over 5 percent of the women in 10 communities. For example, 9 percent of women we interviewed at Los Angeles County-USC Medical Center who obtained insufficient care cited their inability to obtain an appointment earlier in their pregnancy as their primary barrier. Most local officials we talked to in Los Angeles County mentioned the overcrowded public health clinic system as a major barrier to access to prenatal care. They said that women had to wait an average of 3 to 4 weeks to get an appointment; waiting times ranged from 2 to 16 weeks. Other officials said that clinic hours were inconvenient for working women and that Medicaid recipients could not get care because the clinics were saturated with undocumented aliens.

Inability to obtain an earlier appointment was cited by 24 percent of the women in Charleston, West Virginia. According to the nurse coordinator at the Charleston prenatal care clinic, the clinic has had to close admissions once a year for the past 4 years because of high patient volume and limited staff. When we talked to clinic personnel in mid-November 1986, they said that they would accept no new patients until mid-January 1987. Clinic personnel could not provide information on the number of women who had been turned away or where they went for care. The clinic coordinator told us, however, that she was unaware of any physician in the Charleston area who provided care to Medicaid and uninsured women.

Another community-specific barrier was identified among the large Hispanic population in California. About half of the women who said they did not get care earlier or more often because they did not know where to go to obtain care delivered at Los Angeles County-USC Medical Center, and about 68 percent of all women citing this barrier as most important delivered at California hospitals. Of those citing this barrier, 68 percent were Hispanic.

Age

Although the lack of money was a major barrier for all age groups, it was cited as the most important barrier most frequently by those 30-34 years of age (21 percent) and least frequently by those in the under-18 age group (9 percent). Conversely, not being aware of the pregnancy was cited most frequently by those under 18 (20 percent) and least frequently by those 30-34 years old (8 percent). The percentage of women citing lack of transportation as the most important barrier ranged from 6 percent for those 18-19 years old to about 10 percent for those 30-34 years old. Transportation was not cited as the most important barrier by any of the women over 35.

Child care becomes an increasingly important barrier with age, increasing from about 2 percent for women 18-19 years old to over 6 percent for those 25 and older. The percentage of women saying they did not go earlier or more often for prenatal care because they knew what to do also increases with age from over 1 percent for those 19 and under to over 6 percent for those 30-34.

Although they did not individually account for a large percentage of the barriers, awareness or attitudinal barriers were more prevalent among women 19 and under. For example, they were more likely to say that they (1) did not want to tell that they were pregnant, (2) had too many problems to worry about prenatal care, (3) were afraid of being pregnant, or (4) were not sure that they wanted a baby.

Race

Hispanic women were more likely than blacks or whites to say that the most important reason they did not obtain prenatal care earlier or more often was that they did not have enough money to pay for their care (22 percent compared with 10 percent of blacks and 18 percent of whites). Two other barriers cited more frequently by Hispanic women, not knowing where to go to get care and not being able to get an appointment earlier in their pregnancy, are more a reflection of care in Los Angeles than differences in barriers faced by Hispanics nationally.

Black and white women were more likely than Hispanics to say that they did not seek prenatal care earlier or more often because they did not know they were pregnant (17 percent of blacks and 16 percent of whites compared with 11 percent of Hispanics). Black women were most likely to say that they had no problems in obtaining care (21 percent compared with 18 percent for whites and 14 percent for Hispanics).

White and black women were most likely to say that they did not obtain prenatal care earlier or more often because they did not have transportation to the provider's office (10 percent of whites and 8 percent of blacks compared with 3 percent of Hispanics). The differences may be due at least in part to the concentration of Hispanic women in urban areas with public transportation systems.

Number of Visits

Direct relationships exist between the number of prenatal care visits a woman made and the types of barriers to care she perceived as most important. Specifically, as the number of prenatal care visits increased from 0 to 13 or more, the percentage of women who said that they

- had no problem in obtaining care increased from 0 percent to about 33 percent,
- had problems in arranging child care decreased from 10 to 1 percent,
- had problems finding a doctor or other provider to see them decreased from about 13 to 0 percent, and
- did not have enough money to pay for prenatal care decreased from 30 to about 11 percent.

Although the relationships were not as strong, women who made four or fewer visits were less likely than those who made five or more visits to say that the most important reason they did not get care earlier or more often was that they did not know that they were pregnant. About 7 percent of those who made 4 or fewer visits cited this reason, compared with 13 percent of those making 5-8 visits, 22 percent of those making 9-12 visits, and 17 percent of those making 13 or more visits.

Transportation was cited as the most important barrier by 8-9 percent of women in all categories of visits except those making 9-12 visits. Only 4 percent of women in that group cited transportation as their most important barrier.

Although not as frequently cited as the most important barrier, women who obtained no prenatal care or made one to four visits were more likely than other women to be unsure whether they wanted a baby, to be afraid of tests or of being pregnant, to think that prenatal care was not important, or to say that they had too many other problems to worry about prenatal care.

Trimester of First Visit

Strong relationships also exist between the trimester of a woman's first visit for prenatal care and her perceptions of the most important barrier to her receiving earlier or more frequent care. Specifically, as the date of the first visit regresses from the first trimester to no care, the percentage of women who said that they

- had no problem in obtaining care decreased from 25 to 0 percent,
- had no transportation to the office decreased from 11 to 0 percent, and
- did not have enough money to pay for prenatal care increased from 18 to 30 percent.

Women who began care in the second trimester were most likely to cite not knowing they were pregnant as their most important barrier (18 percent), followed by those who began care in the third trimester (10 percent). Similarly, those who began care in the second trimester were most likely to cite the lack of child care (5 percent) and the inability to miss work (3 percent).

Women who began care in the first trimester but did not make a sufficient number of prenatal care visits were more likely than other women to complain about waiting too long for an appointment, not being able to get an appointment earlier in their pregnancies, or having problems with Medicaid, although none of these barriers were among the most frequently cited as most important.

Education

Women with an eighth-grade education or less were most likely to cite lack of child care, inability to obtain an earlier appointment, being afraid of tests, or not having enough money to pay for prenatal care as their most important barrier to earlier or more frequent prenatal care.

Those with some high school were the most likely to say that they had trouble obtaining transportation, had to wait too long in the doctor's office, did not want to tell that they were pregnant, were not sure that they wanted a baby, or were afraid of being pregnant.

Women who had graduated from high school were most likely to say that they had no problems in obtaining care and to view prenatal care as unimportant. Finally, women with some college experience were the most likely to say they did not know where to go or did not know they were pregnant.

Place of Visit

Women who obtained care at a hospital clinic were the most likely to say that they did not know that they were pregnant (18 percent compared with 13-14 percent of women obtaining care at the local health department or a doctor's office) or that they had no problems in obtaining care (23 percent compared with 16 and 20 percent of those obtaining care from the local health department and at a doctor's office, respectively).

Women seen at the local health department were more likely to cite problems getting off work, arranging child care, or getting an earlier appointment. These problems did not appear to be major barriers for most women.

Women cared for by a private physician were most likely to say that they did not go earlier or more often because they lacked money to pay for the care (21 percent compared with 16 percent of women obtaining care at the local health department and 10 percent at a hospital clinic) or to have problems in getting to the doctor's office (11 percent compared with 6 percent of women obtaining care at local health departments and 4 percent at a hospital clinic).

Medicaid as a Barrier to Prenatal Care

Medicaid pays for recipients' prenatal care. Of the 458 women who tried to get on Medicaid rolls during their pregnancies, 82 or 18 percent said that in doing so they had problems that kept them from going earlier or more often for care. The two most frequently cited problems were

- not meeting Medicaid eligibility requirements (31 women) and
- the length of time it took to receive notification of Medicaid eligibility (26 women) (median of 8 weeks).

Women we interviewed in Alabama and Georgia were more likely to state that Medicaid eligibility requirements kept them from going earlier or more often for care. For example, 19 of the 31 women who did not meet eligibility requirements were from Alabama or Georgia, while none were from New York. This could reflect the low Medicaid eligibility thresholds in Alabama and Georgia (see p. 50). In addition, 16 of the 26 women who said it took a long time (median of 10.5 weeks) to receive their Medicaid cards were from California.

Of the 640 women who were on Medicaid rolls at some time during their pregnancies, 72 or 11 percent said problems with Medicaid kept them

from going earlier or more often for care. The two most frequently cited problems were

- being unable to get a doctor, nurse, or midwife to see them (38 women) and
- lacking money to pay for their visits despite being enrolled in Medicaid (18 women).

Women from Alabama, Georgia, or Illinois accounted for 24 of the 38 recipients who said they could not get a doctor, nurse, or midwife to see them.

Few Women Have Problems Finding a Provider

Of the 1,157 women interviewed, only 122 said that they could not obtain care earlier or more frequently because (1) there were no local doctors, nurses, or midwives to provide the care or (2) they could not get a doctor, nurse, or midwife to see them. Further, except for Montgomery, Alabama, there appeared to be no significant problem in finding a doctor in any area of the country or among any demographic group. The small number of women citing problems in finding a physician to treat them may be more of a reflection of the availability of care from health departments and hospital clinics than an indication that private physicians are willing to accept Medicaid recipients and uninsured women. Sixty-one percent of the women we interviewed obtained their prenatal care in public clinics. Still, only 6 percent of the women interviewed said that they would prefer to have obtained their care from a different provider, normally a private-practice physician.

Summary

Three major barriers to prenatal care—lack of money to pay for care, transportation to get to the provider's office, and awareness of the pregnancy—predominated in virtually every community studied. The relative importance of the barriers varied according to such factors as size of community, insurance status, age, sex, and race. Further, the availability of free care and public transportation appeared to decrease the importance of lack of money and transportation as barriers to prenatal care.

Options for Improving Access to Prenatal Care

While individual communities need to tailor programs for improving access to prenatal care to their own unique demographics and conditions, the federal government can, through the Medicaid and Maternal and Child Health (MCH) block grant programs, help pay for prenatal care services. Recent legislation allows states to make it easier for women to qualify for Medicaid coverage of prenatal care services. States have several options for increasing MCH block grant funds for special programs that aim to increase services available to low-income women.

The states and communities we visited had a wide range of initiatives for improving access to prenatal care, but little information was available on their effectiveness. HHS should assume a stronger role in identifying and evaluating state and local initiatives and disseminating data on effective practices.

Six of the eight states visited had raised Medicaid reimbursement rates to increase provider participation. Although many private-practice physicians will not accept Medicaid recipients because of low reimbursement rates, interviewed women generally obtained care from public clinics and few preferred to get care elsewhere. While higher reimbursement rates might improve access to mainstream health care by increasing provider participation, expanding Medicaid eligibility to cover additional low-income women would more effectively improve access to prenatal care.

Changes in Medicaid Allow States to Expand Coverage

As we discuss on page 38, women with Medicaid coverage were less likely than uninsured women to cite a lack of money as the most important barrier to earlier or more frequent care (10 percent of Medicaid recipients compared with 23 percent of uninsured women). In 1984, 1985, and again in 1986, the Congress enacted legislation that either required or allowed states to expand eligibility for Medicaid coverage of prenatal care services. This could reduce the number of uninsured women unable to obtain prenatal care because of a lack of money. A further option provided in 1986—presumptive eligibility—could, by establishing Medicaid coverage earlier in the pregnancy, reduce the number of Medicaid-eligible women who cite lack of money as a barrier to care.

Expanded Eligibility

The Deficit Reduction Act (DEFRA) of 1984 and the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 required states to provide Medicaid coverage to certain categories of pregnant women and children

who meet Aid to Families with Dependent Children (AFDC) income and resource standards. DEFRA required states to provide Medicaid coverage for women who would qualify for AFDC and Medicaid when their children are born and pregnant women in two-parent families where the primary wage earner is unemployed. COBRA, by requiring states to provide Medicaid coverage to pregnant women in two-parent families even when the primary wage earner is employed, further expanded eligibility for women who meet AFDC income and resource standards.

The Omnibus Budget Reconciliation Act of 1986 gives states the option (effective April 1987) to

1. extend Medicaid coverage for pregnancy-related services to pregnant women with incomes higher than the state eligibility levels for AFDC or Supplemental Security Income (SSI), but not more than 100 percent of the federal poverty level, and

2. make ambulatory care available to pregnant women during a presumptive eligibility period, so they may receive free prenatal care while their Medicaid applications are being processed.

The Congressional Budget Office (CBO) estimated that extending Medicaid coverage in all states to women with incomes not more than 100 percent of the poverty level would increase federal Medicaid payments by about $190 million during fiscal year 1987. This estimate was not reduced to account for savings that would arise from improved prenatal care. CBO estimated increased Medicaid payments resulting from presumptive eligibility of about $6 million over a 3-year period.

That savings in reduced intensive care and long-term institutional costs can be expected to result from a reduced incidence of low birth-weight babies was stated by the House Committee on the Budget in its report on the Omnibus Budget Reconciliation Act of 1986 (House Report 99-727). Citing the work of the Institute of Medicine (see p. 14), the committee report said that these savings have been conservatively estimated to be in the range of $3 for every $1 invested in prenatal care. In the committee's view, expanded eligibility may well initially result in net outlays, but these costs will in subsequent years be more than offset by savings of the magnitude estimated by the Institute of Medicine.

If widely adopted, these two options could help overcome lack of money as a barrier to care. Extending Medicaid coverage to women whose incomes are up to the federal poverty level could enable states to

expand the number of women eligible for Medicaid coverage. Many residents of the eight states we visited who were living below the federal poverty level did not qualify for Medicaid, as shown in table 4.1. In Alabama, for example, for every 100 residents living below the federal poverty level there were 24 Medicaid recipients in fiscal year 1982, and in California there were 83.

Table 4.1: Number of Medicaid Recipients Per 100 Residents Below the Federal Poverty Level (Fiscal Year 1982)

State	No.
Alabama	24
California	83
Georgia	31
Illinois	58
Maine	53
Massachusetts	69
New York	60
West Virginia	37

Source: Health Care Financing Administration (HCFA), Health Care Financing Program Statistics: Analysis of State Medicaid Program Characteristics, 1984 (Baltimore, Md., 1984), pp. 154-55

Medicaid eligibility requirements varied widely among the states we visited, as shown in table 4.2. To qualify for Medicaid under AFDC eligibility rules, a family of three could have a maximum annual income ranging from $1,416 in Alabama to $7,404 in California (15.5 and 81.2 percent of the federal poverty level, respectively). Similarly, to qualify under medically needy[1] criteria, a family of three could have a maximum annual income ranging from $3,480 in West Virginia to $9,900 in California (38.2 and 108.6 percent of the federal poverty level, respectively). Alabama, the state with the lowest eligibility standard for the categorically needy, has no medically needy program.

[1]States have the option of extending Medicaid eligibility to individuals whose incomes are slightly higher than the AFDC level or who incur large medical expenses—generally referred to as the "medically needy."

Table 4.2: Medicaid Eligibility Standards for a Family of Three Based on Annual Income (as of January 1987)

State	AFDC		Medically needy	
	Annual income	Percent of poverty[a]	Annual income	Percent of poverty[a]
Alabama	$1,416	15.5	$ •	•
California	7,404	81.2	9,900	108.6
Georgia	3,072	33.7	4,104	45.0
Illinois	4,104	45.0	5,496	60.3
Maine	6,432	70.5	6,492	71.2
Massachusetts	5,892	64.6	7,896	86.6
New York	5,964	65.4	7,400	81.1
West Virginia	2,988	32.8	3,480	38.2
National average	$4,496	48.9	$5,497	59.8[b]

[a]Federal poverty level for states visited: $9,120

[b]This percentage represents the average medically needy threshhold as a percent of poverty only for those states with a medically needy program

Source: State Medicaid Information Center, National Governors' Association, January 1987

As of June 1987, according to the Children's Defense Fund, 19 states, including Massachusetts and West Virginia, had implemented the expanded eligibility made possible by the Omnibus Budget Reconciliation Act of 1986. Ten other states, including New York, have indicated that implementation is likely.

Presumptive Eligibility

Although 10 percent of the Medicaid recipients who had received insufficient care cited lack of money as the most important barrier to care, their problems may be due to delays in establishing Medicaid eligibility. While our interview information did not enable us to determine exactly when the respondents established Medicaid eligibility, 41 or 85 percent of the 48 who cited a lack of money as their primary barrier to care established Medicaid eligibility during their pregnancy. Of these women, 26 or 63 percent claimed that they had encountered problems in establishing eligibility. The most frequently cited problems were the length of time it took to receive their Medicaid cards and not knowing that they qualified for Medicaid.

Those who cited a lack of money as their primary barrier to care were not the only women to indicate that they had problems getting on Medicaid rolls. Of the 458 women we interviewed who tried to qualify for Medicaid during their pregnancy, 301 or 66 percent claimed they had

encountered problems in establishing eligibility. Eighty-two or 27 percent of those who encountered problems claimed that these problems kept them from going for care earlier or more often. Although not meeting Medicaid eligibility requirements was their most frequently cited problem, second most frequently cited was the length of time it took to be notified of eligibility.

Presumptive eligibility—providing free care during the application process—might help address lack of money as a barrier for Medicaid recipients as well as remedy problems caused by delays in receiving a Medicaid card. Relatively few states, however, plan to implement this option. When the National Governors' Association surveyed state Medicaid directors in late January 1987 to determine the likelihood of states' adopting it, they found the directors cautious.

Because of administrative complexities, nearly half of the directors believed further study was needed before a choice on presumptive eligibility could be made, and only a small number believed that its potential benefits outweighed implementation problems. Many directors were concerned that the option might lead to worsened or more difficult provider relations. Some pointed out that providers might resist the added responsibility of determining eligibility or having to deny services to women determined ineligible by the Medicaid agency after the presumptive period. The directors anticipated that providers might make incorrect, unreliable, and problematic determinations in establishing eligibility based on preliminary financial information. Further, directors were concerned about possible repercussions from eligibility denials made subsequent to granted presumptive status and about administrative problems related to automated systems used in eligibility determinations, verification, and provider payments.

As of June 1987, no states had implemented presumptive eligibility, according to the Children's Defense Fund, and only three states planned to do so.

Increasing Medicaid Reimbursement Rates May Not Be Best Solution

Many private-practice physicians will not accept Medicaid recipients because of low reimbursement rates and high medical malpractice insurance costs. But only 2 percent of the women who obtained insufficient care cited difficulty in finding a doctor, midwife, or nurse to see them as the most important barrier to earlier or more frequent care. Generally, the women we interviewed were able to obtain their prenatal care from a local hospital or public health clinic and did not prefer to go elsewhere

for care. States could better use their limited resources to expand Medicaid eligibility for prenatal care services for women who do not currently qualify for Medicaid rather than increasing Medicaid reimbursement rates to improve access to mainstream health care for women who meet current eligibility requirements.

Low Medicaid Reimbursement Rates

In 1986, the average Medicaid reimbursement rate for total obstetrical care including antepartum care, vaginal delivery, and postpartum care was about $473. Among the states we visited, reimbursement rates for total care varied from $255 in West Virginia to $1,027 in Massachusetts. The rates paid for total obstetrical care by each state we visited are shown in table 4.3.

Table 4.3: Reimbursement Rates for Total Obstetrical Care in Eight States Visited (1986)

State	Reimbursement rate
Alabama	$450.00
California	721.68
Georgia	800.00
Illinois	446.00
Maine	500.00
Massachusetts	1,027.00
New York	550.00
West Virginia	255.00

For the most part, Medicaid reimbursement rates are lower than fees charged by private physicians for obstetrical care. An ACOG survey of 10 practicing physicians in each of 10 geographically diverse areas across the United States found the median physician charge in 1986 for total maternity care to be $1,000. The charges ranged from a mean of $840 in the rural Midwest to a mean of $3,422 in a large city in the East. Except for the Medicaid reimbursement rate in Massachusetts, these mean charges generally exceed Medicaid rates in the states we visited.

Medicaid reimbursement was also less than that paid by Blue Shield plans in at least two states. For example, in New York, Blue Shield of Northeastern New York paid $1,500 for maternity care in contrast to a Medicaid payment of $550. Similarly, in California Blue Shield's fiscal year 1985/86 average payment for total maternity care was $1,200 compared with the Medicaid reimbursement of about $520.

Health care providers often will not accept Medicaid recipients because of low reimbursement levels, according to the Southern Regional Task Force on Infant Mortality (sponsored by the Southern Governors' Association). The task force claimed that southern states in particular had low Medicaid participation rates due to low reimbursement, citing a November 1984 study[2] showing varied Medicaid participation rates across the country (see table 4.4).

Table 4.4: Regional Variations in Medicaid Participation Rates (November 1984)

Region	Percent of OB/GYNs accepting Medicaid patients
Northeast	66.2
North Central	69.2
South	60.4
West	63.1

When fewer providers treat Medicaid recipients, the task force pointed out, services are in short supply or unavailable to those patients. As a result, it recommended that states increase reimbursement rates to primary care providers under Medicaid.

Six of the eight states we visited had recently increased Medicaid reimbursement rates, with increases ranging from 5 percent in Illinois to 100 percent in New York and 103 percent in Massachusetts. In many cases, reimbursements were raised in an attempt to increase provider participation. For example, in Massachusetts Medicaid reimbursement rates were increased to address physicians' concerns. Maine also raised its reimbursement rates to increase provider participation. However, according to state officials, their rates were still much lower than private insurers and, although most physicians were enrolled in the Medicaid program, many were still unwilling to accept Medicaid recipients because of low reimbursement.

[2]Janet Mitchell and Rachel Schurman, "Access to Private OB-Gyn Services Under Medicaid," Medical Care, No. 11, Vol. 22 (Nov. 1984), pp. 1026-1037.

Escalating Malpractice Insurance Costs Limit Participation

In a September 1986 report,[3] we noted that between 1982 and 1984 the average malpractice premium for self-employed physicians had increased 45 percent (from $5,800 to $8,400), but the increase for obstetrics/gynecology was 72 percent (from $10,900 to $18,800). These premiums represent a small but growing percentage of the average total expenses of self-employed physicians. In general, between 1982 and 1984 the average insurance premiums increased from 7 to 9 percent of average total expenses, but for obstetrics/gynecology this increase was from 10 to 16 percent.

In May 1985, we surveyed a variety of professional organizations, including ACOG, on problems relating to malpractice insurance, including the impact of malpractice suits or the threat of suits. In responding, ACOG noted that medical malpractice suits or the threat of such suits had resulted in a decrease in patients' access to medical care and an increase in the cost of care. Further, it indicated an increase in the numbers of physicians deciding to retire early or change specialties once established in practice. Because of the high percentage of Medicaid recipients and uninsured women who obtained their prenatal care from a public hospital or health department clinic, rising malpractice rates may have a greater effect on privately insured women's access to prenatal care to the extent that private-practice physicians retire or change specialties.

In West Virginia, the State Medical Association surveyed its members to ascertain the impact of professional liability problems on the actual practice of West Virginia physicians and the type and quality of health care they provided. Of the obstetricians/gynecologists who responded to the survey, 89 percent claimed that liability problems had affected their practice. Forty-one percent of those responding claimed that because of liability problems they declined to provide Medicaid services. Noting the results of this survey, a West Virginia task force report pointed out that malpractice rates for obstetricians/gynecologists in West Virginia had increased 64 percent between 1985 and 1986 and were expected to increase by 30 percent in 1987. This task force concluded that low Medicaid reimbursement rates, coupled with the large increase in malpractice rates, had resulted in many providers limiting or declining services to low-income pregnant women.

Similarly, a recent report by the Southern California Child Health Network stated that in 26 of California's 58 counties women on Medicaid

[3]Medical Malpractice: Insurance Costs Increased but Varied Among Physicians and Hospitals (GAO/HRD-86-112), Sept. 15, 1986.

had little or no access to maternity care. The major causes noted for this lack of provider participation were inadequate reimbursement rates and high malpractice insurance premiums.

Women Obtain Care at Public Clinics

Sixty-nine or about 11 percent of the Medicaid recipients interviewed said that they had encountered problems in finding a doctor who would see them. Of these women, 38 claimed this problem was a barrier to their receiving care earlier or more often. That the problem of finding a doctor willing to see them was limited appears to be due to the availability of care at public clinics. Fifty-two percent of the Medicaid recipients obtained their prenatal care from hospital clinics or local health department clinics, while 40 percent obtained care at a doctor's office. The remaining 8 percent went to other providers.

While increasing Medicaid reimbursement rates for maternity services may improve provider participation and access to mainstream health care, it may not be the most effective way to use limited resources. With increased reimbursement, women may shift from public health departments and hospital clinics to private physicians, yet still may not obtain significantly earlier or more continuous care. For instance, 57 percent of women who obtained most of their care at a doctor's office obtained insufficient care. In addition, of women obtaining an insufficient level of care, only 2 percent said their most important barrier was "could not get a doctor, midwife, or nurse to see me." For the same group of women, this barrier ranked 13th out of 26 in terms of "most important" barriers and 15th of 26 in terms of all barriers to care.

More Block Grant Funds Needed, States Claim

The federal government makes funds available for prenatal care services through block grants to states. Although the Congress appropriated $457 million for the Maternal and Child Health block grant program in fiscal year 1986, all 19 states and territories surveyed by the Southern Regional Task Force on Infant Mortality reported that block grant funds were insufficient to meet their needs.

States may be able to at least partially compensate for the limited funds available under the block grant program by expanding Medicaid eligibility to cover prenatal care for women with incomes up to 100 percent of the poverty level. This would shift to Medicaid some of the costs currently covered by block grant funds, making more funds available for outreach and such special services as transportation. States could also

reallocate funds from other block grant programs to support increased prenatal care services.

MCH Block Grant Program

The MCH block grant program is authorized under title V of the Social Security Act as amended by the Omnibus Budget Reconciliation Act of 1981 and administered by the Public Health Service. It provides grants to states to (1) assure that mothers and children (particularly those with low income or limited availability of health services) have access to quality maternal and child health services and (2) reduce infant mortality, among other things. To apply for a grant, a state must describe its intended use of funds; the population, areas, and localities needing maternal and child health services; its goals and objectives for meeting those needs; the types of services to be provided; the categories or characteristics of individuals to be served; and the data it will collect on activities conducted. In addition, the states must assure that, among other things, block grant funds will be equitably distributed and low-income women will not be charged for health services provided.

States have great flexibility in determining what services can be provided under the program. With the exception of inpatient services, states may offer whatever health and health-related services they choose, including free or subsidized prenatal care, health education, outreach to pregnant women, and/or transportation services. The law restricts provision of inpatient services to "high-risk women," whom it does not define. According to a program official, most states consider this population to include all low-income women, defined in the law as those whose income is at or below 100 percent of the federal poverty level.

Of the $457 million appropriated for the MCH block grant program in fiscal year 1986, about $388 million or 85 percent[4] was allocated to 57 states and jurisdictions[5] to provide maternal and child health services and to reduce infant mortality. The states we visited were allocated $102.8 million, as shown in table 4.5.

[4]The remaining 15 percent was set aside for Special Projects of Regional and National Significance (SPRANS) (see p. 58).

[5]MCH block grant funds were allocated to the 50 states and the following jurisdictions: the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Mariana Islands, and the Trust Territories.

Table 4.5: MCH Block Grant Funds Allocated to Eight States Visited (FY 1986)

State	MCH block grant allocation
Alabama	$8.4
California	22.4
Georgia	11.4
Illinois	15.4
Maine	2.7
Massachusetts	8.8
New York	28.7
West Virginia	5.0
Total	**$102.8**

Information on the amount of MCH block grant funds used specifically to provide prenatal care was unavailable at the federal level. Although states report their use of MCH funds, the reports are not standardized, and states need not report expenditure data in this detail.

In November 1985, the Southern Regional Task Force on Infant Mortality reported that all 19 of the southern states and territories agreed that MCH block grant funds were insufficient to meet the needs of their clients. The states desired more support for hospital costs, family planning, prenatal services, outreach, and staffing. According to the study, expansion of MCH block grant funds would allow states to provide preventive health care education and services to needy women and infants.

The expanded eligibility made possible under the Medicaid program gives states the potential of shifting some of the population currently served under MCH block grants to the Medicaid program. By providing Medicaid services to women with incomes up to 100 percent of the poverty level (see p. 47), states could increase the use of block grant funds to provide

- education and outreach services to help inform low-income women of the importance of prenatal care and where to obtain it;
- transportation services to overcome one of the major barriers identified by the women we interviewed; and
- prenatal care services, either free of charge or at subsidized rates, to uninsured women whose income, though above the federal poverty level, is still limited and who continue to face difficulties in paying for care.

In a May 1984 report,[6] we pointed out that other federal funds were available to support MCH programs. Funds can be transferred into MCH from other block grants. For example, we reported that Mississippi had transferred $700,000 from the Low-Income Home Energy Assistance block grant to the MCH program in 1983 to fund several projects, including two maternity programs in high-risk areas.

States determine how their MCH block grant funds will be used. This gives them the added flexibility to shift funding among the various programs currently supported by MCH block grants in order to increase prenatal care services.

More Evaluation and Dissemination of Information on Prenatal Care Initiatives Needed

Although each of the states and communities we visited had one or more initiatives to improve access to prenatal care, little data were available on the success of these initiatives. Through the MCH block grant program and the adolescent family life program, PHS funds research and demonstration projects to identify, evaluate, and disseminate innovative methods to improve access to prenatal care. PHS should take a leading role in evaluating and disseminating information on prenatal care initiatives being carried out in states and communities, particularly those funded by MCH block grant funds.

PHS Supports Research and Demonstration Projects

Fifteen percent or $69 million of the fiscal year 1986 MCH block grant appropriation was set aside for Special Projects of Regional and National Significance to improve the health status outcomes for mothers and children. Among these were MCH projects that demonstrated and tested various approaches to improve the delivery of services to mothers and children.

For example, in fiscal year 1986 PHS provided $218,000 in MCH block grant funds to the Improved Prenatal Care Utilization and Birth Outcome Project conducted by the Massachusetts Department of Public Health. This project aims to

1. identify behavioral, cultural/linguistic, and structural factors that influence prenatal care utilization;

[6]Maternal and Child Health Block Grant: Program Changes Emerging Under State Administration, (GAO/HRD-84-35), May 7, 1984.

2. assess systematic gaps in prenatal care service delivery in four communities;

3. plan and implement community-based interventions to reduce barriers to care, particularly for women at high risk for adverse birth outcomes; and

4. evaluate these interventions for their impact on prenatal care utilization.

Results of SPRANS projects are disseminated in various ways, according to an MCH program official. Results of some completed projects are published periodically in administrative publications and discussed at the annual meeting of state program directors. In addition, annually the Division of MCH publishes abstracts of active projects and sends them to state program directors, PHS regional offices, and SPRANS grantees.

Another PHS program that funds research and demonstration projects is the adolescent family life program, which provides grants to public and private nonprofit agencies to address adolescent pregnancy. The demonstration projects provide care and/or pregnancy prevention services to adolescents. In addition, grants and contracts are awarded to support research and dissemination activities concerning the causes and consequences of adolescent premarital sexual relations, contraceptive use, pregnancy, and child rearing. In fiscal year 1986, $14 million was appropriated to fund 85 demonstration and 11 research projects.

PHS annually publishes a document providing general information on each of the ongoing demonstration projects and distributes it to all project directors and various interest groups. But, as state health departments and directors of state MCH programs do not routinely receive copies of this document, they may be unaware of projects that could help them plan or improve prenatal care initiatives in their states.

Little Information Available on Effectiveness of State and Local Programs

In the states and communities we visited, we identified a number of programs that attempted to overcome barriers to prenatal care. (App. XIV describes several programs in the states and communities we visited.) All states we visited had one or more programs that provided prenatal care to low-income women, often at no cost to the women. Eligibility for these programs varied. Some accepted only participants who were not eligible for Medicaid, while others would accept Medicaid patients, and still others targeted high-risk women or teenagers.

By providing prenatal care, these programs primarily addressed the financial barriers to care. However, through the services they provided, other barriers, particularly educational/attitudinal barriers, also were addressed. For example, several of the programs offered not only prenatal care, but social and nutrition services, health education, outreach, counseling, and prenatal and/or parenting classes.

In addition, many programs we identified were primarily aimed at education and outreach—often to increase awareness of services available for pregnant women. For example, directories to maternal and child health services were published or telephone referral services established. Other programs informed the public of the importance of prenatal care or offered support services or education to pregnant women. For example, one program linked pregnant teenagers with adults they could trust to help them through pregnancy and into parenthood.

Finally, transportation problems were addressed by a few local programs in the states we visited. For example, one program not only provided transportation to and from prenatal care visits, but also visited pregnant women in their homes to encourage them to go for prenatal care. Another provided a van equipped as a medical office to visit rural sites monthly with prenatal services.

Little information was available, however, on the effectiveness of these programs. Programs that had been evaluated showed that the services offered had improved access to prenatal care. Perhaps the best example of the benefits derived by offering comprehensive care to low-income women was provided by California's OB Access Pilot Project. It was jointly funded by Medicaid and title V (Maternal and Child Health Services) of the Social Security Act from July 1979 through June 1982. The project aimed to (1) improve Medicaid-eligible women's access to obstetrical services in areas where a lack of providers or poor provider participation posed a problem; (2) offer these women quality, comprehensive prenatal care; and (3) reduce perinatal mortality and morbidity rates and the percentage of pregnancies with complications. In total, 5,422 women completed care in the project.

In addition to addressing gaps in prenatal health services, the project was designed to provide the evaluation data needed for planning future projects. The project evaluation demonstrated positive results as follows:

- Access to care was increased by contracting with providers in areas where lack of access to maternity services had been demonstrated.
- Continuity of care was provided; 84 percent of the registrants completed care in spite of a variety of access problems.
- OB Access mothers had fewer problems in pregnancy outcomes compared with a matched group of similar mothers from the same counties. The OB Access mothers had a low birth-weight rate of 4.7 percent compared with the matched group's rate of 7.0 percent.
- The cost of providing this enhanced care was 5 percent higher than the average cost of care provided under the current Medicaid program.
- The benefit-cost ratio of the program was found to be 1.7-2.6:1 for the short run and may be greater in the long run, when compared with the Medicaid program.

Based on the results of the OB Access Pilot Project, California enacted legislation mandating that Medicaid services for prenatal care include the extra care components introduced in the OB Access Pilot Project and increasing the reimbursement rate for providers who delivered these comprehensive perinatal services. At the time we completed our field work, the California Department of Human Services was finalizing Medicaid regulations to implement the legislation and will be obtaining Medicaid provider applications to participate in the expanded program during 1987.

The kind of evaluation done for the OB Access Pilot Project was the exception rather than the rule. In 1986, when we reviewed teenage pregnancy programs, we found a similar lack of evaluation.[7] Although we identified numerous state and local programs that seemed promising, the evidence of their effectiveness was frequently either lacking or ambiguous.

The Southern Regional Task Force on Infant Mortality also pointed out the need for more information regarding effective prenatal care programs. It recommended that (1) cost-benefit studies of maternal and infant care programs be conducted and (2) the federal government encourage research in preventive perinatal health care, including motivational and educational aspects of health and social service delivery. In addition, the task force believed states should establish a maternal and infant health clearinghouse to provide state officials, planners, and the public information on what services, programs, and data are available.

[7]Teenage Pregnancy: 500,000 Births a Year but Few Tested Programs (GAO/PEMD-86-16BR), July 21, 1986.

We agree with the task force that more needs to be done to evaluate programs seeking to improve access to prenatal care. Evaluations similar to that done for the OB Access Pilot Project could provide useful information to states and localities in both establishing and improving prenatal care programs. A mechanism exists to disseminate the results of any evaluations conducted by PHS. In 1983, PHS' Division of Maternal and Child Health established the National Maternal and Child Health Clearinghouse as an information resource center.[8] The primary function of the clearinghouse is to provide information through the dissemination of publications. As such, it identifies selected resources on maternal and child health and human genetics issues and helps make them available to those who request them. But the clearinghouse distributes materials only on request and maintains no mailing list for specific publications. Information dissemination might be improved if publications were routinely sent to individuals involved in planning and operating prenatal care initiatives.

Summary

States and communities have shown an interest in improving access to prenatal care through the various programs currently in operation. Without evaluations, however, it is difficult to determine the extent to which these programs are meeting their objectives or whether the programs might be improved. If PHS were to evaluate ongoing programs, particularly those funded by the MCH block grant, and disseminate information on "best practices," states and communities could use this information to establish or revise programs to achieve the best results.

[8]Some of the functions of the clearinghouse originally began in 1978 when the Division of Maternal and Child Health established the National Clearinghouse for Human Genetic Diseases. In 1982, the clearinghouse's mandate was broadened to include all maternal and child health areas, and the name was changed to the National Center for Education in Maternal and Child Health. The National Maternal and Child Health Clearinghouse was established as a separate entity in 1983 when the clearinghouse function was separated from the education and research function.

Conclusions and Recommendations

Conclusions

As of 1985, virtually no progress had been made in meeting goals set by the Surgeon General in 1980 for reducing the percentage of live births that are of low birth weight and getting women to obtain prenatal care within the first 3 months of pregnancy. In fact, the United States has made less progress in reducing infant mortality than most other industrialized nations, data from the Children's Defense Fund shows.

If the Surgeon General's goals are to be met, concerted efforts are needed by federal, state, and local governments to develop programs to ensure that women most at risk of poor pregnancy outcomes—low-income, minority, and adolescent women—begin care early in pregnancy and obtain care frequently. Despite existing federal, state, and local efforts to improve access to prenatal care, 63 percent of the Medicaid recipients and uninsured women we interviewed obtained insufficient care.

This far exceeded the percentage for privately insured women in the same communities. The problems interviewed women had in obtaining sufficient prenatal care affected women of all childbearing ages, of all races, and from small, medium, and large communities. Further, they affected both women without health insurance and those covered by Medicaid.

Although three barriers to earlier or more frequent care predominated in virtually every community—lack of money to pay for care, lack of transportation to get to the provider of care, and lack of awareness of the pregnancy—the importance of these and other barriers varied by community. Because most women faced multiple barriers, programs focused on overcoming one barrier may have limited effect overall on prenatal care in a community. A comprehensive effort is needed to identify the primary barriers in the community by systematically gathering data in a manner such as the questionnaire used in our study, develop programs to overcome those barriers, and evaluate the effectiveness of the programs in improving access to care. Although the solutions must be designed to meet the needs of individual communities, federal funds are available through the Medicaid and MCH block grant programs to assist states and communities.

The availability of free prenatal care appears to reduce significantly the percentage of women citing lack of money as a barrier to earlier or more frequent care. Women covered by Medicaid were less likely to cite lack of money as a problem than uninsured women (10 percent versus 23 percent), and uninsured women in such communities as Birmingham

that offered free prenatal care had fewer women avoiding care for lack of money to pay for it.

Recent federal legislation allows states to expand the availability of free care through changes in Medicaid eligibility. States can now offer Medicaid coverage to women whose incomes are up to 100 percent of the federal poverty level. This option is particularly important in such states as Alabama, Georgia, and West Virginia where Medicaid eligibility criteria prevent pregnant women living well below the poverty level from qualifying for Medicaid coverage.

While expanding Medicaid eligibility in all states would increase Medicaid costs for prenatal care services—CBO estimated a fiscal year 1987 increase of $190 million—these costs should be offset by savings from reduced newborn intensive care and long-term institutional costs. According to the Institute of Medicine, for every dollar spent on prenatal care for high-risk women—such as those we interviewed—over three dollars could be saved in the costs of care for low birth-weight infants. Professional services associated with prenatal care cost an estimated $400 (excluding labor and delivery costs) compared with newborn intensive care costs averaging about $14,700 for each low birth-weight infant.

States also have the option of presumptive eligibility—providing free care to women while their Medicaid applications are being processed. This option is important because women may delay care until their eligibility is established. Of the Medicaid recipients who cited lack of money as a barrier to earlier or more frequent care, 85 percent established Medicaid eligibility during their pregnancy, and 63 percent said that they encountered problems in establishing eligibility. By providing free care during the eligibility process, states could help remove lack of money as a barrier to care for Medicaid recipients, particularly during the critical first 3 months of the pregnancy.

States are reluctant to implement the presumptive eligibility provisions because of anticipated administrative problems. But the potential benefits in reduced newborn intensive care costs and infant mortality should more than offset the modest cost—estimated by CBO to be $6 million over a 3-year period—of paying for prenatal care during the presumptive eligibility period. HHS should work with the states to overcome any administrative problems that might be encountered in implementing the presumptive eligibility provisions.

Raising Medicaid reimbursement rates has been suggested by some health care organizations as one way to increase access to prenatal care. They reason that higher reimbursement rates would result in more private-practice physicians accepting Medicaid patients, thereby increasing access. Our study showed, however, that few women had problems finding a physician or other health care provider to see them. Most obtained their care at hospital or public health department clinics, and the women generally did not express a preference for obtaining care elsewhere. While higher reimbursement rates may be justified, they will, in our opinion, do little to improve access to prenatal care for most women. Instead, they will expand the choices of providers available to women obtaining care at a hospital or public health clinic. States with limited resources to devote to the Medicaid program could achieve better success by (1) expanding eligibility to provide Medicaid coverage to pregnant women with incomes up to 100 percent of the poverty level and (2) providing free care during the eligibility process.

Although the Medicaid program will pay for transportation to obtain prenatal care, we found in three of the eight states visited that coverage of such services was either limited or not well publicized. Even where payment is available, transportation still may be a barrier if public transportation is unavailable or women must travel long distances to obtain care.

The primary federal support for transportation and educational activities and medical services for uninsured women comes from the MCH block grant program. Little information is gathered and disseminated by PHS, however, on how much of the block grant funds are used for prenatal care services and how effectively state and local programs improve access to prenatal care.

All 19 southern states and territories surveyed by the Southern Regional Task Force on Infant Mortality reported that MCH block grant funds were not sufficient to meet their needs. States have several options available to make more effective use of MCH block grant funds to provide prenatal care services:

1. Implement the expanded Medicaid eligibility provisions of the Omnibus Budget Reconciliation Act of 1986. This would shift costs for medical services currently paid for through block grants to the Medicaid program, making more funds available for other activities.

2. Allocate a greater portion of MCH block grant funds to prenatal care services.

3. Supplement the federal MCH allocations by transferring funds from other block grant programs to the MCH program.

GAO is doing a study to determine whether the current method of allocating MCH block grant funds targets the limited funds available to states and localities with the greatest need and the least capacity to meet their needs.

Recommendations

We recommend that the Secretary of HHS direct the HCFA Administrator to

- develop and provide to the states data on (1) the increased costs they would likely incur in expanding Medicaid eligibility to include pregnant women with incomes up to 100 percent of the federal poverty level and (2) the corresponding decrease in costs for newborn intensive care and long-term institutional care they could expect to result from improvements in prenatal care services and
- work with states to overcome the administrative problems that prevent them from adopting the presumptive eligibility provisions of the Omnibus Budget Reconciliation Act of 1986.

We also recommend that the Secretary direct the Surgeon General to

- expand efforts to evaluate programs to improve access to prenatal care and disseminate the results of these evaluations through the National MCH Clearinghouse and
- provide technical assistance to communities in developing comprehensive plans for identifying the most important barriers to care in the community and designing programs to help overcome those barriers.

Objectives, Scope, and Methodology

In conducting this study of prenatal care, our objectives were to

- assess the adequacy of prenatal care (in terms of number of visits and trimester of first visit) obtained by women who were on Medicaid rolls or uninsured;
- identify the barriers women perceive as preventing them from obtaining care earlier or more often; and
- identify federal, state, and local programs aimed at overcoming such barriers.

To accomplish our first two objectives, we interviewed 1,157 Medicaid recipients and uninsured women at 39 hospitals[1] in 32 communities. We accomplished our third objective by interviewing state and local officials and collecting data on state and local programs that address difficulties of accessing prenatal care. We also evaluated recent changes in the Medicaid and Maternal and Child Health Programs.

Selection of Communities

A three-step process was followed in selecting communities and hospitals. First, we selected eight states[2] —Alabama, California, Georgia, Illinois, Maine, Massachusetts, New York, and West Virginia—to

- include states with large Medicaid programs,
- obtain a mix of Medicaid programs in terms of eligibility and benefits, and
- cover most regions of the country.

Next, within each state, we selected communities to obtain a mix of

- large metropolitan areas, such as New York (Manhattan), Atlanta, and Los Angeles;
- other urban areas, such as Syracuse, New York, Sacramento, California, and Peoria, Illinois; and
- rural areas, such as Clarksburg, West Virginia, and Troy, Alabama.

In selecting communities, we also attempted to obtain a mix of racial groups and geographic dispersion around the state.

[1]Our study initially included 40 hospitals, but we dropped Saint Vincent's Hospital in Birmingham, Alabama from the study because only one relevant birth occurred during the 7-day period we covered, and that woman did not consent to an interview.

[2]Two of the 8 states, Maine and Massachusetts, accounted for a total of only 4 hospitals and 70 interviews, or 6 percent of total cases, because we conducted only pilot tests at these locations.

Finally, within each community, we selected the hospital that had the largest number of Medicaid-reimbursed and uninsured births.[3] In addition, in seven communities we selected a second hospital to obtain a better mix of facilities by type of ownership (public versus not-for-profit) or to increase the number of interviews in selected communities. The characteristics of the 32 communities and 39 hospitals are shown in table I.1.

[3]In New York City (Manhattan), we selected the hospitals that had the second and third largest number of Medicaid and uninsured births in order to include a large black and Hispanic population.

Table I.1: Characteristics of Communities and Hospitals Included in GAO's Study (1986-87)

Community/hospital	Type of community	Type of hospital ownership	Prenatal care clinic?
Birmingham, Alabama	Urban		
Cooper Green		Public	No
Huntsville, Alabama	Urban		
Huntsville		Public	No
Montgomery, Alabama	Urban		
Baptist Medical Center		Not-for-profit	No
Selma, Alabama	Rural		
Vaughan Regional Medical Center		Not-for-profit	No
Troy, Alabama	Rural		
Edge Memorial		Public	No
Los Angeles, California	Large urban		
Los Angeles County-USC Medical Center		Public	Yes
Long Beach Memorial Medical Center		Not-for-profit	Yes
Bakersfield, California	Urban		
Kern Medical Center		Public	Yes
Sacramento, California	Urban		
Sutter Memorial		Not-for-profit	No
El Centro, California	Rural		
El Centro Community		Public	No
Ukiah, California	Rural		
Ukiah General		For-profit	No
Atlanta, Georgia	Large urban		
Grady Memorial		Public	Yes
Georgia Baptist Medical Center		Not-for-profit	Yes
Columbus, Georgia	Urban		
Medical Center		Public	Yes
Savannah, Georgia	Urban		
Memorial Medical Center		Not-for-profit	Yes

Community/hospital	Type of community	Type of hospital ownership	Prenatal care clinic?
Americus, Georgia	Rural		
Sumter Regional		Public	No
Brunswick, Georgia	Rural		
Glynn-Brunswick Memorial		Public	No
Chicago, Illinois	Large urban		
Cook County		Public	Yes
Ingalls Memorial		Not-for-profit	No
Peoria, Illinois	Urban		
Saint Francis Medical Center		Not-for-profit	Yes
Methodist Medical Center		Not-for-profit	No
Rockford, Illinois	Urban		
Rockford Memorial		Not-for-profit	Yes
Carbondale, Illinois	Rural		
Memorial Hospital		Not-for-profit	No
Mattoon, Illinois	Rural		
Sara Bush Lincoln Health Center		Not-for-profit	No
Bangor, Maine	Urban		
Eastern Maine Medical Center		Not-for-profit	Yes
Augusta, Maine	Rural		
Kennebec Valley Medical Center		Not-for-profit	No
Boston, Massachusetts	Large urban		
Brigham and Women's		Not-for-profit	Yes
Boston City		Public	Yes
New York, New York	Large urban		
Harlem Hospital Center		Public	Yes
Columbia-Presbyterian Medical Center		Not-for-profit	Yes
Buffalo, New York	Urban		
Children's		Not-for-profit	Yes
Syracuse, New York	Urban		
Crouse-Irving Memorial		Not-for-profit	No
Saint Joseph's		Not-for-profit	Yes
Kingston, New York	Rural		
Benedictine		Not-for-profit	Yes

Community/hospital	Type of community	Type of hospital ownership	Prenatal care clinic?
Auburn, New York	Rural		
Auburn Memorial		Not-for-profit	No
Charleston, West Virginia	Urban		
Charleston Area Medical Center		Not-for-profit	Yes
Huntington, West Virginia	Urban		
Cabell Huntington		Public	Yes
Bluefield, West Virginia	Rural		
Bluefield Community		Not-for-profit	No
Clarksburg, West Virginia	Rural		
United Hospital Center		Not-for-profit	No
Totals (of 32 communities and 39 hospitals reviewed)	5 Large urban	24 Not-for-profit	19 No
	14 Urban	14 Public	20 Yes
	13 Rural	1 For-profit	

Hospitals, which account for 99 percent of all U. S. births, were selected as the site of our interviews primarily to overcome the difficulties anticipated in locating and interviewing women once they had left the hospital. Each of the hospitals agreed to assist in our study, having their staff identify Medicaid recipients and uninsured women for interviews and administer consent forms. Because the hospitals were not responsible for providing prenatal care to women who delivered there, the results of the interviews do not in any way reflect on the adequacy of services provided by the 39 hospitals.

At each selected hospital, we attempted to interview Medicaid and uninsured women to determine

- when they started receiving prenatal care,
- how many prenatal care visits they received, and
- what barriers prevented them from getting prenatal care earlier or more often.

The standardized questionnaire (see app. II) we used was reviewed by officials of the Institute of Medicine, the American College of Obstetricians and Gynecologists, the Alan Guttmacher Institute, and the Children's Defense Fund; their comments were incorporated where appropriate. We also translated the questionnaire and consent form into Spanish in anticipation of a significant number of Hispanic women in our population.

Selecting the Women to Be Interviewed

We used two separate approaches in selecting women to be interviewed. First, at 23 urban hospitals, hospital staff would identify Medicaid recipients or uninsured women who delivered over a consecutive 7-day period. Usually on the day after delivery, the hospital staff asked Medicaid recipients or uninsured women to sign a consent form (see app. III). This voluntary consent form provided the woman's permission for GAO to

- interview her about the prenatal care she obtained and
- review any of her hospital, physician, public health clinic, or other medical records related to her pregnancy.

If a woman consented, GAO staff trained in structured interview techniques administered a 20-minute questionnaire before the woman left the hospital. A total of 758 interviews were conducted in these 23 hospitals.

A second approach was used at 16 hospitals, 13 rural and 3 urban,[4] at which we generally expected only about one hospital interview a day. This approach involved three components to help assure a larger number of interviews:

- At each hospital, for a consecutive 28-day period, hospital staff identified Medicaid recipients or uninsured women who delivered. Usually on the day after delivery, the hospital staff asked these women to sign the consent form. If a woman consented, she was asked to return to the hospital at a later date for a face-to-face interview. Upon her return,[5] she received $25 to complete the interview. A total of 243 women returned for interviews.
- We also interviewed women who delivered about the time we were at these hospitals to conduct interviews with the returning women. For these inpatient interviews, we generally used the urban hospital approach discussed above. A total of 117 interviews were conducted with inpatients.
- At four hospitals,[6] at which relatively few interviews were obtained using the first two components, we also visited local health clinics to interview women returning for post-partum visits. At these locations, we identified women who had delivered in about the past 2 months and asked them to consent to an interview. This component accounted for 39 interviews.

Overall, of 1,670 women who received consent forms, 1,403 or 84 percent consented to be interviewed (see table I.2). Consent rates ranged from 52 percent at Sara Bush Lincoln Health Center to 100 percent at Cooper Green Hospital, Baptist Medical Center, and Saint Francis Medical Center. The 23 hospitals at which we used the urban methodology had a consent rate of 88 percent, while the 16 hospitals at which we used the rural (28-day) methodology had a consent rate of 77 percent. One reason that the rural consent rate is not higher is that some women declined to participate because of the distance involved in returning to the hospital.

[4]Rockford Memorial Hospital, Charleston Area Medical Center, and Cabell Huntington Hospital.

[5]We did not use this payment methodology to obtain the interviews at Kennebec Valley Medical Center, Augusta, Maine. At this pilot-test hospital, we attempted to interview women in the hospital and women returning to local providers for postpartum visits.

[6]Ukiah General Hospital, Glynn-Brunswick Memorial Hospital, Sara Bush Lincoln Health Center, and Kennebec Valley Medical Center.

Table I.2: Women Interviewed and Records Validated, by Hospital (1986-87)

State/hospital	No. of Medicaid recipients and uninsured women who delivered	No. administered consent form	Women consenting to interview		Interviews		Full validations	
			No.	Percent of women administered consent form	No.	Percent of consents	No.	Percent of interviews
Alabama								
Cooper Green	35	35	35	100	35	100	31	89
Huntsville	22	20	19	95	19	100	18	95
Baptist Medical Center	24	24	24	100	22	92	18	82
Vaughan Regional Medical Center	58	58	51	88	45	88	43	96
Edge Memorial	28	28	25	89	24	96	23	96
California								
Los Angeles County-(USC Medical Center)	357	309	306	99	195	64	163[a]	84
Memorial Medical Center	22	21	17	81	17	100	17	100
Kern Medical Center	65	65	47	72	39	83	32	82
Sutter Memorial	42	39	28	72	26	93	26	100
El Centro Community	38	38	27	71	19	70	17	89
Ukiah General	46	23	19	83	18	95	16	89
Georgia								
Grady Memorial	92	92	85	92	83	98	70	84
Georgia Baptist Medical Center	17	17	13	76	12	92	9	75
Medical Center	32	30	26	87	26	100	17	65
Memorial Medical Center	31	26	24	92	23	96	20	87
Sumter Regional	42	40	34	85	23	68	18	78
Glynn-Brunswick Memorial	49	34	30	88	24	80	19	79
Illinois								
Cook County	102	102	78	76	61	78	38	62
Ingalls Memorial	7	7	5	71	4	80	4	100
Saint Francis Medical Center	16	16	16	100	14	88	11	79
Methodist Medical Center	7	7	5	71	5	100	5	100
Rockford Memorial	55	53	36	68	34	94	25	74
Memorial Hospital	67	61	46	75	38	83	32	84
Sara Bush Lincoln Health Center	33	33	17	52	17	100	14	82

State/hospital	No. of Medicaid Recipients and uninsured women who delivered	No. administered consent form	Women consenting to interview: No.	Women consenting to interview: Percent of women administered consent form	Interviews: No.	Interviews: Percent of consents	Full validation: No.	Full validation: Percent of interview
Maine								
Eastern Maine Medical Center	16	16	13	81	10	77	10	100
Kennebec Valley Medical Center	10	10	9	90	9	100	9	100
Massachusetts								
Brigham and Women's	50	50	42	84	35	83	18[a]	51
Boston City	25	22	18	82	16	89	8	50
New York								
Harlem Hospital Center	52	52	44	85	43	98	32[a]	74
Columbia-Presbyterian Medical Center	56	53	42	79	41	98	23	56
Children's	21	21	16	76	16	100	10	63
Crouse-Irving Memorial	11	11	8	73	8	100	7	98
Saint Joseph's	9	9	8	89	8	100	8	100
Benedictine	25	25	20	80	14	70	9	64
Auburn Memorial	24	24	17	71	16	94	13	81
West Virginia								
Charleston Area Medical Center	68	68	45	66	38	84	37	97
Cabell Huntington	41	41	37	90	25	68	23	92
Bluefield Community	69	69	55	80	39	71	37	95
United Hospital Center	21	21	16	76	16	100	16	100
Total	1,785	1,670[b]	1,403	84	1,157	82	946	82
	*****	*****	*****		*****		***	

[a]Estimated number based on sample results.

[b]A total of 115 women left the hospital before the consent form could be administered.

Of the 1,403 women who consented to be interviewed, we interviewed 1,157 (82 percent). The interview rates ranged from 64 percent for women at Los Angeles County-USC Medical Center to 100 percent for women at 11 other hospitals. For both the 23 hospitals at which we used the urban interview methodology and the 16 hospitals at which we used the rural methodology, the interview rate was 82 percent. (See table I.2)

We were unable to interview 246 women (18 percent) who consented to be interviewed because:

- 146 women were discharged before the interview. For example, although we had five staff members conducting interviews at Los Angeles County-USC Medical Center, this was not enough to interview the large numbers of consenting women before their discharge. In addition, at other hospitals we were unable to interview some women who delivered on Friday or Saturday and were discharged by Sunday.
- 79 in rural methodology hospitals did not return for face-to-face interviews.
- 21 could not be interviewed for other reasons, including language barriers or the physical condition of the woman.

Demographic data collected for interviewed women was obtained from hospital records. Information on educational level and medical problems, however, was self-reported. Appendix XIII shows demographic breakouts for the 1,157 women interviewed by hospital.

Characteristics of Women Who Did Not Consent to an Interview

While we did not attempt to determine why some women declined to participate in our interview, we did collect certain data to elaborate on them. We asked hospital staff for demographic data from hospital records, including maternal age, race, insurance status, and birth outcome, on women who did not agree to sign the consent form. Most of this data was provided for 267 women. Our analysis of the data showed percentages between women in each demographic group to be comparable for age and birth outcome, but not for race and insurance status (see table I.3).

Table I.3: Interviewed and Nonconsenting Women Compared by Race and Insurance Status (1986-87)

Demographic	Percent of women interviewed	Percent of nonconsenting women
Race:		
Black	84	16
White	77	23
Hispanic	87	13
Other	53	47
Insurance status:		
Medicaid	79	21
Uninsured	86	14

Thus, relatively more white women, women of other races, and Medicaid recipients did not consent to be interviewed.

Interviews in Spanish

Many women were interviewed in Spanish because they were more fluent in this language. Specifically, 261 or 23 percent of the 1,157 interviews were conducted in Spanish. The hospitals at which these interviews occurred and the percentage of Spanish interviews at each hospital are shown in table I.4.

Table I.4: Hospitals at Which Spanish Interviews Were Conducted (1986-87)

Hospital	City/state	Interviews in Spanish	
		No.	Percent
Los Angeles County-USC Medical Center	Los Angeles, California	168	86
Kern Medical Center	Bakersfield, California	14	36
El Centro Community	El Centro, California	6	32
Memorial Medical Center	Long Beach, California	1	6
Columbia-Presbyterian	New York, New York	20	63
Harlem Hospital	New York, New York	21	49
Cook County Hospital	Chicago, Illinois	24	39
Sumter Regional	Americus, Georgia	1	4
Total		**261**	**23**

Projection of Questionnaire Results

While the results of our interviews are not projectable to the universe of women who delivered in each community, we believe the results generally describe the prenatal care obtained by Medicaid recipients and uninsured women in the 32 communities studied. In 27 of the 32

communities,[7] the hospitals included in the study accounted for the majority of 1985 Medicaid and uninsured births in the county. For example, the selected hospitals in Atlanta and Boston accounted for 78 and 70 percent, respectively, of 1985 Medicaid-reimbursed and uninsured births in the counties in which they are located. In addition, local officials generally agreed that our results reflected the prenatal care in their communities.

Because the communities were judgmentally selected, the results of our work cannot be used to compare the adequacy of prenatal care on a state-by-state basis.

Validation of Prenatal Care Received

Rather than relying totally on personal recall, we attempted to use medical records to validate interviewed women's recollection of their number of prenatal visits and month of first visit. We identified prenatal care providers by asking each woman, during the interview, where she obtained care and by reviewing hospital records. Generally, we reviewed prenatal records at the locations where a woman received her prenatal care or asked her prenatal care provider(s) to furnish such information.[8]

We defined a prenatal care visit as one in which the patient had any hands-on contact with a health care provider. For example, a prenatal visit could include, but not be limited to, any visit in which any one of the following occurred: blood pressure checks, urinalysis, pelvic exam, fetal heart beat reading, ultrasound, or RH sensitization injections. We did not count visits such as coming to an office solely to pick up vitamin pills or to pay a bill. Our definition of a prenatal visit can be considered fairly broad. Had we used a more restrictive definition, such as one excluding ultrasound tests, our results could have shown an increased number of women obtaining insufficient care.

Overall, we validated 82 percent or 946 of our 1,157 cases. This included the 30 cases in which women received no prenatal care. The results of our validations at each hospital appear in table I.2. Validation rates ranged from 50 percent for women at Boston City Hospital to 100 percent for women at 8 hospitals. The 26 hospitals in urban areas had an

[7]The five communities in which the selected hospital(s) did not account for a majority of the county's 1985 Medicaid and uninsured births were Los Angeles, Chicago, New York (Manhattan), Buffalo, and El Centro, California.

[8]We generally did not use hospital inpatient records because these often do not cover the woman's full prenatal period.

80-percent validation rate, while the 13 rural hospitals had an 88-percent validation rate.

Our validation process found that women tended to (1) overstate their number of visits and (2) say they started their prenatal care earlier than their prenatal records documented. Overall, women overstated their number of prenatal visits by one and stated that their prenatal care began 1 month earlier than documented. In addition, women overstated their number of visits at 31 of the 39 hospitals. Similarly, women stated that their prenatal care began earlier than documented for 38 of the 39 hospitals.

We could not fully validate 211 cases or 18 percent, for a variety of reasons. For example, women received care outside of the country or providers did not respond to us or had no record of providing the prenatal care. For providers who told us they had no record of providing care, we generally did not count such cases as validated because of the possibility that the woman's name had changed, we had contacted a misnamed or incorrect provider, files had been misplaced, or other such problems had occurred. Also, 40 percent of the women had more than one provider during their pregnancy. Unless we could obtain documentation from all of a woman's providers, we did not count a case as validated.

For the 211 cases that we could not fully validate, we adjusted the stated number of visits and month of first visit. We adjusted by the average of the difference between the other 916 cases[9] fully validated data and those women's recollections. This adjustment was made by individual hospital. For example, at Grady Memorial Hospital we validated 68 of 83 cases.[10] For these 68 cases, we compared each woman's validated number of prenatal visits to the number she recalled during the interview. This comparison showed that these 68 women overstated their number of visits by a net average of 3.4 visits. As a result, for the 13 nonvalidated cases, we subtracted 3 from the number of visits each woman recalled during the interview. We then used this adjusted number of visits for each of the 13 women as the number of prenatal visits for all subsequent analyses.

[9]These 916 cases do not include the 30 cases in which women received no prenatal care.

[10]Two of the remaining 15 cases received no prenatal care and were not used in these calculations.

Prenatal Care Visits for Privately Insured Women

To determine whether privately insured women in the 32 communities we visited were more likely than Medicaid recipients or uninsured women to obtain an adequate level of prenatal care, we asked a sample of prenatal care providers to review charts of patients with private health insurance. This resulted in data on 4,047 women. We compared the adequacy of care, month of first visit, and number of prenatal visits for this group with the same data for Medicaid recipients or uninsured women in the 32 communities.

To develop the data on privately insured women, we used different approaches to identify 872 providers in urban and rural areas. For the 19 urban communities, we drew random samples for each community from the telephone book yellow pages for physicians under the specialty heading of Obstetrics and Gynecology. This resulted in an original urban sample of 715 physicians, as shown in table I.5. For the 13 rural communities, we asked the hospital to provide a list of all obstetricians and other prenatal care providers, such as family practitioners or midwives, who furnished prenatal care in the area. This resulted in an original rural universe of 157 providers.

We sent a 1-page questionnaire to each of the 872 providers. We asked that a chart review be conducted of their eight most recent privately insured patients who had (1) delivered after an uncomplicated pregnancy and (2) obtained all of their prenatal care under the provider's supervision. We requested each patient's (1) total number of prenatal visits, (2) length of gestation (weeks) at the first prenatal visit, and (3) length of gestation (weeks) at delivery. For urban providers, we sent the original letter and three follow-up letters. For rural providers, we sent the original letter and (because of time constraints) two follow-up letters.

As some of the selected providers who responded had not recently provided prenatal care or otherwise did not fit the sample, we revised the numbers of selected providers. For example, 105 of the 715 urban providers and 32 of the 157 rural providers responded that they had not provided prenatal care in the last 12 months or did not meet other criteria. As a result, we adjusted the urban sample size to 610 and the rural universe to 125, or a revised total of 735, as shown in table I.5.

Our overall response rate was 70 percent. This included 423 urban responses or 69 percent and 88 rural responses or 70 percent. Urban response rates ranged from 50 percent in Birmingham and Boston to 90

percent in Syracuse. Rural response rates ranged from 43 percent in Brunswick, Georgia to 90 percent in Ukiah, California (see table I.5).

Table I.5: Response Rates for Questionnaire on Prenatal Care Obtained by Privately Insured Women, by Community (1986-87)

Community	Initial sample[a]	Revised sample	Responses		Sampling error	
			No.	Percentage	No. of visits	Month of first visit
Urban:						
Birmingham	25	20	10	50	.92	.19
Huntsville	15	15	12	80	.58	.23
Montgomery	15	15	12	80	.48	.24
Los Angeles	150	122	84	69	.45	.13
Bakersfield	20	18	13	72	.41	.15
Sacramento	30	25	19	76	.94	.24
Atlanta	100	89	59	66	.38	.14
Columbus	14	11	9	82	.95	.53
Savannah	15	15	9	60	.79	.10
Chicago	100	93	63	68	.44	.14
Peoria	20	19	13	68	.42	.18
Rockford	15	12	10	83	.63	.12
Bangor	6	4	3	75	1.17	.17
Boston	50	44	22	50	.54	.13
New York	50	35	24	69	.88	.18
Buffalo	35	29	25	86	.47	.13
Syracuse	30	21	19	90	.50	.15
Charleston	15	13	9	69	.70	.36
Huntington	10	10	8	80	.29	.10
Urban subtotal	715	610	423	69	.19	.05
Rural:						
Selma	6	6	3	50	-	-
Troy	2	2	1	50	-	-
El Centro	7	7	4	57	-	-
Ukiah	10	10	9	90	-	-
Americus	5	4	3	75	-	-
Brunswick	7	7	3	43	-	-
Carbondale	12	10	5	50	-	-
Mattoon	9	7	5	71	-	-
Augusta	28	24	21	88	-	-
Kingston	21	15	8	53	-	-
Auburn	7	7	6	86	-	-
Bluefield	9	6	5	83	-	-
Clarksburg	34	20	15	75	-	-
Rural subtotal	157	125	88	70	-	-
Total	872	735	511	70	-	-

[a]Due to the relatively small number of providers in most rural communities, the sample size is the same as the universe.

Determining Adequacy of Care

To determine the adequacy of prenatal care, we employed the Institute of Medicine prenatal care index,[11] a widely used index based on the number of prenatal visits in relation to the duration of the pregnancy, the gestational age at the time of the first visit, and the type of hospital delivery service (private or general). For example, the prenatal care obtained by a women with a 36-week or longer pregnancy, would basically be classified as

- adequate if it began in the first trimester, included nine or more visits, and the physician providing the prenatal care also delivered the baby;
- intermediate if the care began in the second trimester or included five to eight visits; and
- inadequate if it began in the third trimester or included four or fewer visits.

The prenatal care index classification for women who gave birth at other gestational ages appears in table I.6.

Table I.6: Institute of Medicine Prenatal Care Index

Index of care	Trimester in which prenatal care began	Gestation (weeks)	No. of prenatal visits
Adequate	First		
	(Within first 13 weeks) AND	18-21	and 3 or more
		22-25	and 4 or more
		26-29	and 5 or more
		30-31	and 6 or more
		32-33	and 7 or more
		34-35	and 8 or more
		36 or more	and 9 or more
Inadequate	Third		
	(28 weeks or later) OR	14-21	and 0
		22-29	and 1 or more
		30-31	and 2 or more
		32-33	and 3 or more
		34 or more	and 4 or more
Intermediate		All combinations other than specified above	

For purposes of our review, we classified inadequate and intermediate categories as insufficient prenatal care, for two reasons:

[11] Institute of Medicine, "Infant Death: An Analysis by Maternal Risk and Health Care," Contrasts in Health Status, Vol. 1., ed. by D. M. Kessner. (Washington, D.C.: National Academy of Sciences, 1973, p. 58-59.)

- Intermediate care involves beginning prenatal care in the second trimester. ACOG recommendations and health professionals generally consider beginning care in the second trimester to be insufficient.
- Intermediate care involves no more than 8 prenatal visits for pregnancies of 36 or more weeks gestation. ACOG recommendations and health professionals generally consider 8 or fewer visits for a pregnancy of 36 weeks or more to be insufficient. For example, ACOG recommends 13 visits for a 40-week uncomplicated pregnancy. If a woman had only 8 visits during a 40-week uncomplicated pregnancy, she would have received only 62 percent of recommended visits.

In determining adequacy of care, we used only the factors relating to number of prenatal visits and gestational age at the time of the first visit. We did not use the third factor, type of hospital/physician delivery service, to further classify adequacy. Investigators who use this prenatal care index also usually omit this third factor.

Identifying Federal, State, and Local Programs to Improve Access to Prenatal Care

To identify federal, state, and local programs to improve access to prenatal care, we

- interviewed state health department, Medicaid, Maternal and Child Health, and other state officials to obtain their views on the adequacy of prenatal care in the state and to identify state and local prenatal care programs;
- interviewed local officials, such as local health department staff, hospital staff, welfare officials, physicians, and other officials familiar with prenatal care in the 32 communities visited to obtain further information on state and local programs;
- collected background data on coverage of prenatal care under the eight states' Medicaid programs; and
- obtained descriptive data on selected state or local programs that address difficulties of accessing prenatal care.

We did not attempt to independently evaluate the state and local programs to determine their impact on access to prenatal care, but obtained copies of any evaluations done by others.

Also, we held discussions with knowledgeable officials to broaden the scope of information obtained. For example, we obtained the views of organizations familiar with prenatal care issues, such as the American College of Obstetricians and Gynecologists, the Institute of Medicine, the Alan Guttmacher Institute, and the Children's Defense Fund. We also

spoke to federal officials in HHS, including HCFA and PHS's Division of Maternal and Child Health and Office of Adolescent Pregnancy Programs to obtain information on federal involvement in prenatal care issues. Additionally, we reviewed selected laws, regulations, and records at pertinent federal offices.

We did our work between July 1986 and June 1987. Interviews were conducted between August 1986 and February 1987. Work was done in accordance with generally accepted government auditing standards, except that we did not, at the request of the subcommittee, obtain agency comments on a draft of this report.

U.S. General Accounting Office Survey of Recipients of Prenatal Care

PATIENT INFORMATION /_/_/_/_/_/_/_/1/

A1. Delivery date of baby:

_____
Month/Date/Year

A2. Gestational age of baby:

_____ weeks

A3. Mother's age at time of delivery:

_____ years

A4. Mother's race: (CHECK ONE.)

1. [386] Black
2. [421] White (Non-Hispanic)
3. [333] Hispanic
4. [11] Asian or Pacific Islander
5. [6] Other (PLEASE SPECIFY.)

_____

A5. Birth outcome (BABY 1): (CHECK ONE.)

1. [1013] Full term (37 weeks or greater)
2. [131] Premature (36 weeks or less)
3. [6] Stillborn

A6. Birth weight (BABY 1):

_____ grams
(CHECK ONE.)

1. [1024] Not low (Greater than 2500 grams)
2. [108] Low (1501 - 2500 grams)
3. [25] Very low (1500 grams or less)

A7. Number of prior births:
(CHECK ONE.)

1. [494] No prior births
2. [650] 1 or more prior births

A8. Birth outcome (BABY 2):(CHECK ONE.)

1. [5] Full term (37 weeks or greater
2. [10] Premature (36 weeks or less)
3. [0] Stillborn

A9. Birth weight (BABY 2):

_____ grams

(CHECK ONE.)

1. [3] Not low (Greater than 2500 grams)
2. [7] Low (1501 - 2500 grams)
3. [5] Very low (1500 grams or less)

- - - -

INTRODUCTION /_/_/_/_/_/_/_/2/

Date of Interview:_____

I'm _____ with the U.S. General Accounting Office, an independent agency of the U.S. Congress. We are interested in talking to women like you around the country to learn about your experience in getting medical care during your pregnancy. The Congress would like this information to help them make decisions about improving prenatal care.

We want to see if you had any problems getting your pregnancy checkups during your recent pregnancy. By checkups we mean any prenatal visits you made to any doctor, midwife, nurse, or other medical person to see how you and your baby were doing.

Your identity and that of your baby will be kept private-- GAO will not reveal your names to the public or any government agency.

Do you have any questions?
First, I'm going to ask you a few questions about the pregnancy checkups that you received.

1. Did you visit a doctor, nurse, or midwife for pregnancy checkups before your delivery? (CHECK ONE.)

   1. [1127] Yes (GO TO QUESTION 2)

   2. [30] No (GO TO QUESTION 12)

2. Now, I want to talk about how many visits for pregnancy checkups you had before your recent delivery. (PROBE, USE INSTRUCTIONS BELOW)

A. Did you use a calendar or appointment cards to help remind you about your pregnancy checkup appointments?

   Do you have the (calendar), (cards) with you?

   -- (IF SHE DOES) May I see it? Could you show me on the calendar/cards which dates you had your pregnancy checkups?

   -- (IF SHE DOESN'T, CONTINUE)

B. Did the medical person tell you about the pregnancy visit schedule you were going to have? (PROBE FOR A TIMETABLE OR SCHEDULE OF VISITS -- LOOKING FOR SYSTEM LIKE ONCE A MONTH, TWICE A MONTH, ETC.)

   Did you generally keep all your appointments?

   NEXT, SHOW CALENDAR

C. Let's walk through this. I'm going to show you a calendar with all the months of the year on it. In which month did you find out that you were pregnant? Think about the pregnancy checkups that you made. Can you show me on the calendar when you made your pregnancy checkup visits? (GO BACK OVER EACH MONTH AND ASK ABOUT THE NUMBER OF VISITS. IT MIGHT BE EASIER TO BEGIN WITH THE FIRST VISIT AND GO THROUGH THE PERIOD OF THE PREGNANCY. TRY TO USE MENTAL CUES SUCH AS HOLIDAYS, VISITING RELATIVES, WEATHER PATTERNS, SHOPPING VISITS, ETC.)

   ATTACH CALENDAR TO QUESTIONNAIRE

   IF THE CALENDAR DOESN'T WORK--

D. When you went for your pregnancy checkups, did you do other things at the same time that might help you remember about the times you went for pregnancy checkups?

E. ENTER TOTAL NUMBER OF VISITS ____ ____

   Is this the number of times that you went for pregnancy checkups?

3. Based on our discussion, you said that your first pregnancy checkup was in _____ (READ BACK MONTH.) In what month of your pregnanc, was this?

   _____ (2nd, 3rd, . . . 9th)

4. When you got your pregnancy checkups, did you go to the same place each time or did you go to different places? (READ.) (CHECK ONE.)

   1. [675] Went to same place
   2. [452] Went to different places

5. I am going to mention some places where you could have gone for pregnancy checkup visits. Please tell me where you went most of the time. (READ.) (CHECK ONE.)

   1. [289] Hospital clinic
   2. [396] Local health depart. clinic
   3. [358] Doctor's office
   4. [5] Midwife service
   5. [21] Combination (SPECIFY.)

      _____

   6. [59] Other (For example, admission to a hospital-- any others?)

      _____

6. Would you have preferred to have gone to some place other than (ANSWER IN Q.5) for your pregnancy checkups? (CHECK ONE.)

   1. [156] Yes (GO TO QUESTION 7) (MUST BE PLACE NOT MENTIONED IN QUESTION 5.)
   2. [971] No (GO TO QUESTION 8)

7. Which place would you have preferred to have gone most of the time? (LISTEN.) (CHECK ONE.)

   1. [20] Hospital clinic
   2. [11] Local health depart. clinic
   3. [107] Doctor's office
   4. [1] Midwife service
   5. [1] Combination (SPECIFY.)

      _____

   6. [17] Other (PLEASE SPECIFY.)

      _____

8. What is (are) the name(s), address(es), and location of all the place(s) where you got your pregnancy checkups? Also, how many pregnancy checkup visits did you make to each place?

	PLACE	NUMBER OF VISITS
1.	_____	__ __
	_____	
	_____	
2.	_____	__ __
	_____	
	_____	
3.	_____	__ __
	_____	

   TOTAL NUMBER OF VISITS (MUST EQUAL NUMBER IN QUESTION 2E.) __ __

9. Most of the time, who gave your pregnancy checkups when you were pregnant? (LISTEN.) (CHECK ONE.)

   1. [847] Doctor
   2. [62] Midwife
   3. [157] Nurse
   4. [55] Combination (PLEASE SPECIFY.)

      _____

   5. [1] Other (PLEASE SPECIFY.)
   6. [5] Don't know

10. Would you have preferred someone other than a (ANSWER IN Q.9) to have given you your pregnancy checkups? (CHECK ONE.)

1. [75] Yes (GO TO QUESTION 11) (MUST BE TYPE OF PROVIDER NOT MENTIONED IN QUESTION 9.)

2. [1052] No (GO TO QUESTION 12)

11. Who would you have preferred to have given you your pregnancy checkups? (LISTEN.) (CHECK ALL THAT APPLY.)

1. [61] Doctor

2. [5] Midwife

3. [1] Nurse

4. [1] Combination (PLEASE SPECIFY.)

_____

5. [6] Other (PLEASE SPECIFY.)

_____

6. [1] Don't know

12. I'm going to read a list of reasons why some women do not go earlier or more often for pregnancy checkups. Some of these reasons may or may not apply to you. When I read a reason that does apply to you, please tell me. (READ.) (CHECK ALL THAT APPLY.)

You did not go earlier or more often for a pregnancy checkup because . . .

1. [102] You did not have anyone to take care of your other children

2. [64] You could not miss work or school

3. [187] You did not have a way to get to the clinic or doctor's office

4. [31] There are no local doctors, midwives, or nurses

5. [91] You could not get a doctor, midwife, or nurse to see you

6. [103] You did not know where to go for care

You did not go earlier or more often for a pregnancy checkup because . . .

7. [100] You felt the wait in the doctor's office or clinic was too long

8. [60] You felt the office hours were not convenient

9. [134] You could not get an appointment earlier in your pregnancy

10. [20] You can't speak English very well and you could not find anyone who spoke your language

11. [79] You did not think it was important to see a doctor, nurse, or another medical person earlier or more often

12. [124] You did not want to think about being pregnant

13. [96] You had too many other problems to worry about getting care

You did not go earlier or more often for a pregnancy checkup because . . .

14. [285] You did not know that you were pregnant

15. [82] You were not sure that you wanted to have the baby so you didn't go to a doctor, midwife, or nurse

16. [144] You knew what to do since you had been pregnant before

17. [97] You were a little afraid of medical tests and examinations

18. [98] You were afraid to find out you were pregnant

You did not go earlier or more often for a pregnancy checkup because . . .

19. [89] You did not want to tell your baby's father, parents or other family members

20. [44] You did not like the doctor's doctor's or nurse's attitudes

21. [12] You thought you might have problems with the Immigration people

22. [259] You did not have enough money to pay for your visits

**

23. [57] You were not eligible for Medicaid

24. [79] You had problems with Medicaid

25. [51] Other (PLEASE SPECIFY.)

_____

26. [340] You had no problems in getting pregnancy checkups (IF NO PROBLEM, GO TO QUESTION 14.)

13. Of all the reasons that applied to you, (READ BACK REASONS SHE GAVE) which one was the most important in keeping you from getting pregnancy checkups earlier or more often? (ENTER NUMBER FROM QUESTION 12.)

___ ___ REASON

14. Were you on Medicaid at the time you were told that you were pregnant? (LISTEN.)

1. [335] Yes (GO TO QUESTION 18)

2. [821] No (GO TO QUESTION 15)

/_/_/_/_/_/_/3/

15. Did you ever try to get on Medicaid during this pregnancy? (CHECK ONE.)

1. [458] Yes (GO TO QUESTION 16)

2. [364] No (GO TO QUESTION 20)

16. I'm going to mention some problems that some women have had in getting on Medicaid. You might or might not have experienced any of these problems. When I read a problem that you have had with getting on Medicaid, please tell me. (READ.) (CHECK ALL THAT APPLY.)

1. [102] At first, you did not know that you qualified for Medicaid

2. [46] You did not know who to see about getting on Medicaid

3. [47] It took a long time for you to complete your Medicaid forms. [IF CHECKED, READ (a)]

(a) How long did it take to complete your Medicaid forms?

___ ___ weeks

4. [120] After you turned in your Medicaid forms, it took a long time to receive your Medicaid card [IF CHECKED, READ (a)]

(a) How long did it take to receive your Medicaid card?

___ ___ weeks

5. [3] Your Medicaid application was not approved because you did not want to identify the father of your child

6. [106] You did not meet Medicaid eligibility requirements

7. [17] The location of the Medicaid office was not convenient

8. [62] You had other problems qualifying for Medicaid (PLEASE SPECIFY.)

_____

9. [158] You had no problems with getting on Medicaid (IF NO PROBLEM, GO TO QUESTION 18.)

17. Did any of these problems keep you from going earlier or more often for pregnancy checkups? (READ LIST IN QUESTION 16 AGAIN. CHECK BOXES WHICH REPRESENT ITEMS WITH SAME NUMBER IN QUESTION 16.)

1. [82] Yes (CHECK ALL THAT APPLY.)

[12] [11] [7] [26]
1 2 3 4

[0] [31] [1] [17]
5 6 7 8

2. [218] No

(IF INTERVIEWEE IS A MEDICAID RECIPIENT, CONTINUE; IF NOT, GO TO QUESTION 20.)

18. I'm going to mention some additional problems that some people have had with Medicaid. You might or might not have experienced any of these problems. When I read a problem that you have had with Medicaid, please tell me. (READ.) (CHECK ALL THAT APPLY.)

1. [29] You did not know that Medicaid would pay for pregnancy checkups

2. [40] You did not have enough money to pay for visits even though you were on Medicaid

3. [69] A doctor, nurse, or midwife would not see Medicaid patients

4. [43] You lost your Medicaid coverage while you were pregnant. [IF CHECKED, READ (a)].

(a) Why did you lose your Medicaid coverage?

_____

_____

5. [45] Other (PLEASE SPECIFY.)

_____

6. [457] You had no problems with Medicaid (IF NO PROBLEM, GO TO QUESTION 20.)

19. Did any of these problems keep you from going earlier or more often for pregnancy checkups? (READ LIST IN QUESTION 18 AGAIN. CHECK BOXES WHICH REPRESENT ITEMS WITH SAME NUMBER IN QUESTION 18.)

1. [72] Yes (CHECK ALL THAT APPLY.)

[6] [18] [38] [16] [11]
1 2 3 4 5

2. [110] No

20. Now, I'm going to ask you some other questions related to our study.

What is the closest hospital to your home where you could have delivered your baby? (LISTEN.) (CHECK ONE.)

1. [641] Same as hospital where she delivered

2. [467] Different hospital than where she delivered

3. [49] Doesn't know

21. Could you tell me why you delivered your baby at _____ (name of) hospital? (LISTEN.) (CHECK ALL THAT APPLY.)

1. [637] You wanted to deliver your baby at this hospital
2. [317] Your doctor, midwife, or nurse told you to come to this hospital
3. [107] Other hospitals required you to pay a deposit or a higher deposit before getting into the hospital
4. [72] This was the only hospital that would take you
5. [85] This was the only hospital in the area
6. [135] Other (PLEASE SPECIFY.)

_____

22. Did you have any medical problems just before or during your pregnancy that caused you to have more pregnancy checkups? (CHECK ONE.)

1. [373] Yes (GO TO QUESTION 23)
2. [784] No (GO TO QUESTION 24)

23. What medical problem(s) did you have? (LISTEN.) (CHECK ALL THAT APPLY.)

1. [41] Diabetes
2. [55] High blood pressure
3. [34] Bleeding
4. [49] Anemia
5. [8] Toxemia
6. [44] Bladder infection
7. [3] Heart disease
8. [13] Overweight
9. [8] Alcohol or drug related problems
10. [213] Other (PLEASE SPECIFY.)

_____

24. Did you participate in any special programs during your pregnancy that were intended to help you get pregnancy checkups earlier or more often? (LISTEN.)

1. [109] Yes (PLEASE LIST.) (IF YES, CONFIRM. PROBE— 'Was this program intended to help you get pregnancy checkups earlier or more often?')
4. [965] No

25. In your opinion, how important or unimportant is getting pregnancy checkups? (READ.) (CHECK ONE.)

Is it . . .

1. [1067] Very important
2. [72] Considerably important
3. [12] Slightly important
4. [5] Not important

26. What month of pregnancy do you think is about the right time for someone to start seeing a doctor, midwife, or nurse for pregnancy checkups? (LISTEN.) (PROBE FOR MONTH.)

_____ month (2nd, 3rd, . . .9th) (0=as soon as she finds out she is pregnant)

[155] Don't know

27. What is the highest level of education that you have had? (READ.) (CHECK ONE.)

1. [155] 1 - 8 grades
2. [410] Some high school
3. [345] Graduated from high school or G.E.D.
4. [211] Some college or technical school
5. [29] Graduated from college
6. [7] No schooling

COMMENTS

28. This completes our interview with you. Do you have any comments about the questions we are asking or about the study in general? (WRITE COMMENTS BELOW OR ON BACK OF PAGE. SEE PROTOCOL FOR CODE.) ____

NOTE: IF INTERVIEWEE ASKS FOR A COPY OF THE REPORT, PLEASE ASK FOR HER NAME AND ADDRESS. WE WILL SEND HER A COPY. (ENTER CODE.) ____

Patient Consent to Participate in GAO Study

Patient's Name: _____

The United States General Accounting Office (GAO) is an independent agency that helps the Congress understand how certain programs are working. People from GAO are doing a study to determine the amount of medical care received by pregnant women and to find out what experiences pregnant women have had in getting pregnancy checkups before giving birth.

GAO representatives have asked _____ (hospital name) to ask you if you will agree to participate in this study. There are two parts to the study:

1. During the first part of this study, GAO representatives will be asking you questions about your experience in getting medical care before your baby was born.

2. During the second part of this study, GAO representatives will review your hospital and other medical records. They will be interested in how many visits you had to a doctor or nurse before your baby was born, the date of your first visit and other factors that may have affected the amount of prenatal care you received.

The representatives of GAO will tell you more about why they would like to have this information. They will also tell you their plans for keeping the information private.

If you are willing to participate in this study, you are requested to sign this form. If you sign this form, you will be agreeing to two things:

1. To talk to GAO representatives about this study and answer some questions for them.

2. To have your _____ (hospital name) and any doctor's, County public health department's, or other medical records reviewed by GAO to determine information such as the number of times you visited the doctor or nurse before your baby was born, the date of your first visit and other factors that may have affected the amount of prenatal care you received.

Your participation in this study is voluntary. You are free to refuse to answer any questions. If, at any time, you decide you do not want to talk to the GAO representatives any more or you do not want them to see

your medical records, they will stop upon your request. This will not affect your care and treatment in any way.

Your identity and that of your baby will be kept private—GAO will not reveal your names to the public.

You should feel free to ask questions of the hospital staff or of the representatives from GAO.

I hereby agree to participate in the study to be conducted by GAO.

I hereby authorize _____ (hospital name) and my doctor, County health department or any other person providing pregnancy checkups to allow my medical records be reviewed by the General Accounting Office.

This _____ day of _____, 1986.

_____ _____

Witness Patient

Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Hospital

The following tables show the results of our interviews at each participating hospital with respect to the adequacy, timing, and number of prenatal visits obtained.

Table IV.1:

Adequacy of Prenatal Care Received by Medicaid Recipients and Uninsured Women, By Hospital (1986-87)

State/hospital	Prenatal care index[a] Inadequate No.	Inadequate Percent of total	Intermediate No.	Intermediate Percent of total	Adequate No.	Adequate Percent of total	Total no.
Total	230	19.88	496	42.87	431	37.25	1157
Alabama							
Cooper Green	4	11.43	16	45.71	15	42.86	35
Huntsville	8	42.11	6	31.58	5	26.32	19
Baptist Medical Center	6	27.27	12	54.55	4	18.18	22
Vaughan Regional Medical Center	4	8.89	30	66.67	11	24.44	45
Edge Memorial	3	12.50	13	54.17	8	33.33	24
California							
Los Angeles County-USC Medical Center	58	29.74	90	46.15	47	24.10	195
Memorial Medical Center	3	17.65	8	47.06	6	35.29	17
Kern Medical Center	12	30.77	15	38.46	12	30.77	39
Sutter Community	2	7.69	11	42.31	13	50.00	26
El Centro Community	4	21.05	6	31.58	9	47.37	19
Ukiah General	1	5.56	8	44.44	9	50.00	18
Georgia							
Grady Memorial	24	28.92	37	44.58	22	26.51	83
Georgia Baptist Medical Center	1	8.33	4	33.33	7	58.33	12
Medical Center (Columbus)	5	19.23	12	46.15	9	34.62	26
Memorial Medical Center	6	26.09	12	52.17	5	21.74	23
Sumter Regional	6	26.09	5	21.74	12	52.17	23
Glynn-Brunswick Memorial	5	20.83	14	58.33	5	20.83	24
Illinois							
Cook County	13	21.31	30	49.18	18	29.51	61
Ingalls Memorial	2	50.00	2	50.00	.	.	4
St. Francis Medical Center	3	21.43	5	35.71	6	42.86	14
Methodist Medical Center	.	.	.	.	5	100.00	5
Rockford Memorial	6	17.65	9	26.47	19	55.88	34
Memorial Hospital (Carbondale)	5	13.16	13	34.21	20	52.63	38
Sara Bush Lincoln Health Center	1	5.88	7	41.18	9	52.94	17

Appendix IV
Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Hospital

State/hospital	Prenatal care index[a]						Total no.
	Inadequate		Intermediate		Adequate		
	No.	Percent of total	No.	Percent of total	No.	Percent of total	
Maine							
Kennebec Valley Medical Center	1	11.11	1	11.11	7	77.78	9
Eastern Maine Medical Center	.	.	4	40.00	6	60.00	10
Massachusetts							
Brigham and Women's	2	5.71	12	34.29	21	60.00	35
Boston City	3	18.75	8	50.00	5	31.25	16
New York							
Harlem Hospital Center	15	34.88	19	44.19	9	20.93	43
Columbia-Presbyterian Medical Center	7	17.07	23	56.10	11	26.83	41
Crouse-Irving Memorial	.	.	2	25.00	6	75.00	8
St. Joseph's	1	12.50	3	37.50	4	50.00	8
Children's	5	31.25	5	31.25	6	37.50	16
Benedictine	.	.	2	14.29	12	85.71	14
Auburn Memorial	.	.	6	37.50	10	62.50	16
West Virginia							
Charleston Area Medical Center	8	21.05	17	44.74	13	34.21	38
Cabell Huntington	.	.	6	24.00	19	76.00	25
Bluefield Community	4	10.26	16	41.03	19	48.72	39
United Hospital Center	2	12.50	7	43.75	7	43.75	16

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 50 such cases, intermediate includes 149 such cases, and adequate includes 174 such cases.

Table IV.2:

Timing of Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Hospital (1986-87)

State/hospital	Trimester: First No.	First Percent	Second No.	Second Percent	Third No.	Third Percent	No care No.	No care Percent	Total No.
Total	522	45.12	479	41.40	126	10.89	30	2.59	1157
Alabama									
Cooper Green	16	45.71	16	45.71	3	8.57	.	.	35
Huntsville	6	31.58	6	31.58	5	26.32	2	10.53	19
Baptist Medical Center	5	22.73	15	68.18	1	4.55	1	4.55	22
Vaughan Regional Medical Center	18	40.00	24	53.33	3	6.67	.	.	45
Edge Memorial	12	50.00	10	41.67	1	4.17	1	4.17	24
California									
Los Angeles County-USC Medical Center	66	33.85	88	45.13	30	15.38	11	5.64	195
Memorial Medical Center	6	35.29	9	52.94	.	.	2	11.76	17
Kern Medical Center	14	35.90	18	46.15	5	12.82	2	5.13	39
Sutter Community	14	53.85	10	38.46	2	7.69	.	.	26
El Centro Community	9	47.37	6	31.58	4	21.05	.	.	19
Ukiah General	10	55.56	7	38.89	1	5.56	.	.	18
Georgia									
Grady Memorial	34	40.96	36	43.37	11	13.25	2	2.41	83
Georgia Baptist Medical Center	8	66.67	3	25.00	1	8.33	.	.	12
Medical Center (Columbus)	9	34.62	15	57.69	1	3.85	1	3.85	26
Memorial Medical Center	8	34.78	9	39.13	5	21.74	1	4.35	23
Sumter Regional	13	56.52	4	17.39	6	26.09	.	.	23
Glynn-Brunswick Memorial	6	25.00	15	62.50	1	4.17	2	8.33	24
Illinois									
Cook County	23	37.70	29	47.54	9	14.75	.	.	61
Ingalls Memorial	1	25.00	2	50.00	1	25.00	.	.	4
St. Francis Medical Center	9	64.29	3	21.43	2	14.29	.	.	14
Methodist Medical Center	5	100.00	.	.	.	.	.	.	5
Rockford Memorial	20	58.82	9	26.47	5	14.71	.	.	34
Memorial Hospital (Carbondale)	22	57.89	13	34.21	3	7.89	.	.	38
Sara Bush Lincoln Health Center	11	64.71	5	29.41	1	5.88	.	.	17

State/hospital	Trimester: First No.	First Percent	Second No.	Second Percent	Third No.	Third Percent	No care No.	No care Percent	Total No.
Maine									
Kennebec Valley Medical Center	7	77.78	1	11.11	1	11.11	.	.	9
Eastern Maine Medical Center	8	80.00	2	20.00	.	.	.	.	10
Massachusetts									
Brigham and Women's	25	71.43	9	25.71	1	2.86	.	.	35
Boston City	6	37.50	8	50.00	2	12.50	.	.	16
New York									
Harlem Hospital Center	11	25.58	23	53.49	7	16.28	2	4.65	43
Columbia-Presbyterian Medical Center	15	36.59	22	53.66	2	4.88	2	4.88	41
Crouse-Irving Memorial	7	87.50	1	12.50	.	.	.	.	8
St. Joseph's	5	62.50	3	37.50	.	.	.	.	8
Children's	6	37.50	7	43.75	2	12.50	1	6.25	16
Benedictine	12	85.71	2	14.29	.	.	.	.	14
Auburn Memorial	11	68.75	5	31.25	.	.	.	.	16
West Virginia									
Charleston Area Medical Center	15	39.47	18	47.37	5	13.16	.	.	38
Cabell Huntington	19	76.00	6	24.00	.	.	.	.	25
Bluefield Community	23	58.97	12	30.77	4	10.26	.	.	39
United Hospital Center	7	43.75	8	50.00	1	6.25	.	.	16

Table IV.3

Prenatal Visits Made by Medicaid Recipients and Uninsured Women, by Hospital (1986-87)

State/hospital	No. and percent of visits[a]										Total no.	Mean	Mean[b]
	0		1-4		5-8		9-12		13+				
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent			
Total	30	2.59	144	12.45	277	23.94	376	32.50	330	28.52	1157	9.86	8.87
Alabama													
Cooper Green	.	.	2	5.71	6	17.14	9	25.71	18	51.43	35	12.97	11.55
Huntsville	2	10.53	3	15.79	3	15.79	7	36.84	4	21.05	19	8.68	7.86
Baptist Medical Center	1	4.55	6	27.27	9	40.91	2	9.09	4	18.18	22	7.18	6.94
Vaughan Regional Medical Center	.	.	2	4.44	17	37.78	17	37.78	9	20.00	45	9.73	9.53
Edge Memorial	1	4.17	1	4.17	10	41.67	10	41.67	2	8.33	24	8.58	7.20
California													
Los Angeles County-USC Medical Center	11	5.64	36	18.46	54	27.69	56	28.72	38	19.49	195	8.09	7.63
Memorial Medical Center	2	11.76	2	11.76	2	11.76	7	41.18	4	23.53	17	9.06	9.00
Kern Medical Center	2	5.13	8	20.51	7	17.95	7	17.95	15	38.46	39	9.92	7.88
Sutter Community	.	.	1	3.85	9	34.62	10	38.46	6	23.08	26	9.96	10.19
El Centro Community	.	.	3	15.79	1	5.26	4	21.05	11	57.89	19	13.00	12.75
Ukiah General	.	.	1	5.56	2	11.11	2	11.11	13	72.22	18	14.33	13.11
Georgia													
Grady Memorial	2	2.41	18	21.69	25	30.12	24	28.92	14	16.87	83	7.88	7.28
Georgia Baptist Medical Center	.	.	.	.	2	16.67	9	75.00	1	8.33	12	9.58	8.89
Medical Center (Columbus)	1	3.85	4	15.38	2	7.69	11	42.31	8	30.77	26	9.81	9.36
Memorial Medical Center	1	4.35	3	13.04	8	34.78	10	43.48	1	4.35	23	7.74	6.73
Sumter Regional	.	.	1	4.35	7	30.43	4	17.39	11	47.83	23	11.96	10.19
Glynn-Brunswick Memorial	2	8.33	3	12.50	7	29.17	7	29.17	5	20.83	24	8.63	8.94

Appendix IV
Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Hospital

State/hospital	No. and percent of visits[a]										Total		
	0		1-4		5-8		9-12		13+				
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Illinois													
Cook County	.	.	9	14.75	16	26.23	17	27.87	19	31.15	61	9.90	8.24
Ingalls Memorial	.	.	2	50.00	2	50.00	.	.	.	.	4	5.00	4.67
St. Francis Medical Center	.	.	3	21.43	4	28.57	4	28.57	3	21.43	14	8.50	7.60
Methodist Medical Center	.	.	.	.	.	.	2	40.00	3	60.00	5	12.40	12.00
Rockford Memorial	.	.	3	8.82	7	20.59	11	32.35	13	38.24	34	11.91	11.26
Memorial Hospital (Carbondale)	.	.	3	7.89	8	21.05	14	36.84	13	34.21	38	10.84	9.00
Sara Bush Lincoln Health Center	.	.	1	5.88	6	35.29	8	47.06	2	11.76	17	9.29	7.67
Maine													
Kennebec Valley Medical Center	.	.	.	.	.	.	5	55.56	4	44.44	9	13.22	12.00
Eastern Maine Medical Center	.	.	.	.	4	40.00	2	20.00	4	40.00	10	10.80	11.17
Massachusetts													
Brigham and Women's	.	.	1	2.86	8	22.86	18	51.43	8	22.86	35	10.77	10.57
Boston City	.	.	3	18.75	5	31.25	6	37.50	2	12.50	16	8.44	9.00
New York													
Harlem Hospital Center	2	4.65	11	25.58	14	32.56	12	27.91	4	9.30	43	6.95	5.75
Columbia-Presbyterian Medical Center	2	4.88	3	7.32	5	12.20	24	58.54	7	17.07	41	9.93	9.79
Crouse-Irving Memorial	.	.	.	.	4	50.00	.	.	4	50.00	8	12.63	8.00
St. Joseph's	.	.	1	12.50	1	12.50	4	50.00	2	25.00	8	11.38	9.86
Children's	1	6.25	4	25.00	.	.	5	31.25	6	37.50	16	10.81	8.63
Benedictine	.	.	.	.	1	7.14	4	28.57	9	64.29	14	14.43	11.00
Auburn Memorial	.	.	.	.	1	6.25	5	31.25	10	62.50	16	13.25	11.63
West Virginia													
Charleston Area Medical Center	.	.	4	10.53	6	15.79	10	26.32	18	47.37	38	11.84	9.35
Cabell Huntington	.	.	.	.	.	.	9	36.00	16	64.00	25	14.08	12.50
Bluefield Community	.	.	1	2.56	11	28.21	15	38.46	12	30.77	39	10.92	10.37
United Hospital Center	.	.	1	6.25	3	18.75	5	31.25	7	43.75	16	11.56	11.09

[a]Each range includes pregnancies with self-reported medical complications. Specifically, 1-4 includes 28 such cases, 5-8 includes 63 such cases, 9-12 includes 123 such cases, and 13+ includes 157 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and including such pregnancies would increase the mean.

Table IV.4:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women Who Began Care in First Trimester, by Hospital (1986-87)

State/hospital	No. and percent of visits[a]								Total no.	Mean	Mean[b]
	1-4		5-8		9-12		13+				
	No.	Percent	No.	Percent	No.	Percent	No.	Percent			
Totals	23	4.41	81	15.52	181	34.67	237	45.40	522	12.19	11.08
Alabama											
Cooper Green	1	6.25	1	6.25	3	18.75	11	68.75	16	15.38	14.30
Huntsville	.	.	1	16.67	3	50.00	2	33.33	6	12.00	11.20
Baptist Medical Center	1	20.00	.	.	1	20.00	3	60.00	5	10.80	10.25
Vaughan Regional Medical Center	.	.	7	38.89	5	27.78	6	33.33	18	10.56	10.36
Edge Memorial	.	.	4	33.33	7	58.33	1	8.33	12	9.83	7.40
California											
Los Angeles County-USC Medical Center	6	9.09	14	21.21	25	37.88	21	31.82	66	10.29	10.28
Memorial Medical Center	.	.	.	.	4	66.67	2	33.33	6	11.83	11.00
Kern Medical Center	1	7.14	1	7.14	1	7.14	11	78.57	14	14.79	13.11
Sutter Community	.	.	3	21.43	6	42.86	5	35.71	14	11.79	12.22
El Centro Community	.	.	.	.	1	11.11	8	88.89	9	17.33	15.33
Ukiah General	.	.	1	10.00	.	.	9	90.00	10	16.50	16.00
Georgia											
Grady Memorial	4	11.76	9	26.47	10	29.41	11	32.35	34	10.09	9.65
Georgia Baptist Medical Center	.	.	1	12.50	6	75.00	1	12.50	8	10.00	9.17
Medical Center (Columbus)	.	.	.	.	3	33.33	6	66.67	9	12.89	12.71
Memorial Medical Center	.	.	4	50.00	3	37.50	1	12.50	8	9.00	9.80
Sumter Regional	.	.	1	7.69	2	15.38	10	76.92	13	15.23	13.71
Glynn-Brunswick Memorial	.	.	1	16.67	.	.	5	83.33	6	14.33	13.60
Illinois											
Cook County	1	4.35	4	17.39	8	34.78	10	43.48	23	11.83	9.93
Ingalls Memorial	.	.	1	100.00	.	.	.	.	1	7.00	7.00
St. Francis Medical Center	1	11.11	2	22.22	4	44.44	2	22.22	9	9.22	8.00
Methodist Medical Center	.	.	.	.	2	40.00	3	60.00	5	12.40	12.00
Rockford Memorial	1	5.00	3	15.00	6	30.00	10	50.00	20	13.30	13.25
Memorial Hospital (Carbondale)	.	.	3	13.64	8	36.36	11	50.00	22	13.05	11.00
Sara Bush Lincoln Health Center	.	.	2	18.18	7	63.64	2	18.18	11	10.91	9.60

Appendix IV
Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Hospital

State/hospital	No. and percent of visits[a]								Total		
	1-4		5-8		9-12		13+				
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Maine											
Kennebec Valley Medical Center	.	.	.	.	3	42.86	4	57.14	7	14.00	13.00
Eastern Maine Medical Center	.	.	2	25.00	2	25.00	4	50.00	8	11.75	11.80
Massachusetts											
Brigham and Women's	.	.	5	20.00	14	56.00	6	24.00	25	11.36	11.12
Boston City	.	.	1	16.67	3	50.00	2	33.33	6	11.50	11.50
New York											
Harlem Hospital Center	1	9.09	1	9.09	5	45.45	4	36.36	11	10.55	9.80
Columbia-Presbyterian Medical Center	3	20.00	1	6.67	9	60.00	2	13.33	15	9.80	9.46
Crouse-Irving Memorial	.	.	3	42.86	.	.	4	57.14	7	13.29	8.00
St. Joseph's	1	20.00	.	.	3	60.00	1	20.00	5	11.80	9.25
Benedictine	.	.	.	.	2	33.33	4	66.67	6	15.67	13.00
Children's	.	.	.	.	4	33.33	8	66.67	12	15.08	12.50
Auburn Memorial	.	.	1	9.09	2	18.18	8	72.73	11	13.55	11.50
West Virginia											
Charleston Area Medical Center	2	13.33	.	.	3	20.00	10	66.67	15	13.73	9.20
Cabell Huntington	.	.	.	.	5	26.32	14	73.68	19	14.74	13.09
Bluefield Community	.	.	4	17.39	10	43.48	9	39.13	23	12.09	11.17
United Hospital Center	.	.	.	.	1	14.29	6	85.71	7	14.43	14.20

[a]Each range includes pregnancies with self-reported medical complications. Specifically, 1-4 includes 6 such cases, 5-8 includes 18 such cases, 9-12 includes 50 such cases, and 13+ includes 116 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and including such pregnancies would increase the mean.

Adequacy of Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Selected Demographics

As shown in table V.1, the adequacy of the prenatal care obtained by Medicaid recipients and uninsured women varied by such factors as age, race, and location, but serious problems of insufficient care existed in each group. Women were most likely to obtain insufficient prenatal care if they were uninsured, poorly educated, black or Hispanic, teen-agers, or from the largest urban areas.

Table V.1:

Adequacy of Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Selected Demographics (1986-87)

Demographic factor	Institute of Medicine (Kessner) classification[a]						Total no.
	Inadequate		Intermediate		Adequate		
	No.	Percent	No.	Percent	No.	Percent	
Totals	230	20	496	43	431	37	1157
Insurance status							
Medicaid	93	15	264	44	248	41	605
Uninsured	137	25	232	42	183	33	552
Community type							
Largest urban	128	25	233	46	146	29	507
Other urban	66	19	135	39	147	42	348
Rural	36	12	128	42	138	46	302
Maternal age							
17 and under	29	24	57	47	35	29	121
18-19	37	21	84	47	59	33	180
20-24	79	18	182	42	171	40	432
25-29	49	19	114	45	93	36	256
30-34	24	20	38	32	56	47	118
35 and over	12	24	21	42	17	34	50
Race							
White	53	13	153	36	215	51	421
Black	88	23	183	47	115	30	386
Hispanic	87	26	151	45	95	29	333
Other	2	12	9	53	6	35	17
Education							
0-8 grades	44	27	75	46	43	27	162
Some high school	95	23	178	43	137	33	410
Graduated high school	54	16	153	44	138	40	345
College	37	15	90	38	113	47	240
Place of most care							
Hospital clinic	50	17	129	45	110	38	289
Local health dept.	67	17	190	48	138	35	395
Doctor's office	58	16	146	41	153	43	357
Midwife service	.	.	4	80	1	20	5
Combination/other	25	31	27	33	29	36	81
Birth weight							
Not low (over 2500 grams)	193	19	438	43	393	38	1024
Very low or low	37	28	58	44	38	29	133

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 50 such cases, intermediate includes 149 such cases, and adequate includes 174 such cases.

Timing of First Visit by Medicaid Recipients and Uninsured Women, by Selected Demographics

As shown in table VI.1, the percentage of women who started their prenatal care in their first, second, or third trimester, or who received no care, varied by such factors as age, race, and location, but problems existed in each group. Women were most likely to begin prenatal care late or receive no care if they lived in the largest urban areas, were 17 years old or under or 35 years old or over, were black or Hispanic, had an eighth-grade or lower education, obtained their care at the local health department, or were uninsured.

Table VI.1:

Timing of First Visit by Medicaid Recipients and Uninsured Women, by Selected Demographics (1986-87)

	Trimester[a]								
	First		Second		Third		No care[a]		Total
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.
Totals	522	45	479	41	126	11	30	3	1157
Insurance status									
Medicaid	301	50	244	40	54	9	6	1	605
Uninsured	221	40	235	43	72	13	24	4	552
Community type									
Largest urban	195	38	229	45	64	13	19	4	507
Other urban	166	48	138	40	36	10	8	2	348
Rural	161	53	112	37	26	9	3	1	302
Maternal age									
17 and under	43	36	58	48	16	13	4	3	121
18-19	69	38	87	48	20	11	4	2	180
20-24	212	49	168	39	41	9	11	3	432
25-29	115	45	107	42	30	12	4	2	256
30-34	65	55	35	30	13	11	5	4	118
35 and over	18	36	24	48	6	12	2	4	50
Race									
White	238	57	143	34	34	8	6	1	421
Black	154	40	177	46	45	12	10	3	386
Hispanic	121	36	152	46	46	14	14	4	333
Other	9	53	7	41	1	6	.	.	17
Education									
0-8 grades	60	37	73	45	25	15	4	2	162
Some high school	169	41	176	43	51	12	14	3	410
Graduated high school	168	49	141	41	28	8	8	2	345
College	125	52	89	37	22	9	4	2	240
Place of most prenatal care									
Hospital clinic	130	45	127	44	32	11	.	.	289
Local health dept.	163	41	184	47	48	12	.	.	395
Doctor's office	188	53	136	38	33	9	.	.	357
Midwife service	1	20	4	80	.	.	.	.	5
Combination/other	40	49	28	35	13	16	.	.	81
Birth weight									
Not low (over 2500 grams)	468	46	417	41	115	11	24	2	1024
Very low or low (2500 grams or less)	54	41	62	47	11	8	6	5	133

[a]Each range includes pregnancies with self-reported medical complications. Specifically, first trimester includes 190 such cases, second trimester includes 147 such cases, third trimester includes 34 such cases, and no care includes 2 such cases.

Number of Prenatal Visits, by Selected Demographics

As shown in tables VII.1-VII.5, the percentage of women who obtained differing numbers of prenatal visits or no care varied by such factors as age, race, length of the pregnancy, and location, and problems existed in each group. Women who were most likely to have four or fewer visits were uninsured, from the largest urban areas, teenagers, black or Hispanic, or had an eighth grade or lower education.

Table VII.1:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women, by Selected Demographics (1986-87)

	No. and percent of women by range of visits[a]												
	0		1-4		5-8		9-12		13+		Total		
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Totals	30	3	144	12	277	24	376	32	330	29	1157	10	9
Insurance status													
Medicaid	6	1	62	10	153	25	197	33	187	31	605	10	9
Uninsured	24	4	82	15	124	22	179	32	143	26	552	9	8
Community type													
Largest urban	19	4	85	17	133	26	173	34	97	19	507	9	8
Other urban	8	2	42	12	70	20	103	30	125	36	348	11	9
Rural	3	1	17	6	74	25	100	33	108	36	302	11	10
Maternal age													
17 and under	4	3	17	14	28	23	40	33	32	26	121	9	9
18-19	4	2	27	15	41	23	59	33	49	27	180	10	9
20-24	11	3	49	11	104	24	142	33	126	29	432	10	9
25-29	4	2	36	14	65	25	73	29	78	30	256	10	9
30-34	5	4	9	8	30	25	45	38	29	25	118	10	9
35 and over	2	4	6	12	9	18	17	34	16	32	50	10	9
Race													
White	6	1	25	6	73	17	154	37	163	39	421	11	10
Black	10	3	62	16	117	30	111	29	86	22	386	9	8
Hispanic	14	4	55	17	81	24	106	32	77	23	333	9	8
Other	.	.	2	12	6	35	5	29	4	24	17	9	9
Education													
0-8 grades	4	2	28	17	49	30	46	28	35	22	162	9	8
Some high school	14	3	59	14	99	24	126	31	112	27	410	10	8
Graduated high school	8	2	37	11	80	23	110	32	110	32	345	10	9
College	4	2	20	8	49	20	94	39	73	30	240	11	9
Place of most care													
Hospital clinic	.	.	33	11	63	22	100	35	93	32	289	11	9
Local health dept.	.	.	47	12	101	26	127	32	120	30	395	10	9
Doctor's office	.	.	42	12	96	27	123	34	96	27	357	10	9
Midwife service	.	.	.	.	3	60	1	20	1	20	5	10	7
Combination/other	.	.	22	27	14	17	25	31	20	25	81	9	8
Birth weight													
Not low (over 2500 grams)	24	2	114	11	231	23	345	34	310	30	1024	10	9
Very low or low	6	5	30	23	46	35	31	23	20	15	133	8	6

[a]Each range includes pregnancies with self-reported medical complications. Specifically, no visits includes 2 such cases, 1-4 includes 28 such cases, 5-8 includes 63 such cases, 9-12 includes 123 such cases, and 13+ includes 157 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and excluding such pregnancies decreases the mean.

Table VII.2:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women Who Began Care in the First Trimester, by Selected Demographics (1986-87)

	No. and percent of women by range of visits[a]										
	1-4		5-8		9-12		13+		Total		
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Totals	23	4	81	16	181	35	237	45	522	12	11
Insurance status											
Medicaid	11	4	50	17	99	33	141	47	301	12	11
Uninsured	12	5	31	14	82	37	96	43	221	12	11
Community type											
Largest urban	15	8	37	19	84	43	59	30	195	11	10
Other urban	8	5	20	12	47	28	91	55	166	13	12
Rural	.	.	24	15	50	31	87	54	161	13	12
Maternal age											
17 and under	1	2	9	21	14	33	19	44	43	12	11
18-19	3	4	10	14	26	38	30	43	69	12	11
20-24	11	5	34	16	71	33	96	45	212	12	11
25-29	5	4	17	15	34	30	59	51	115	13	12
30-34	2	3	11	17	28	43	24	37	65	12	12
35 and over	1	6	.	.	8	44	9	50	18	13	13
Race											
White	7	3	23	10	83	35	125	53	238	13	12
Black	8	5	36	23	47	31	63	41	154	11	11
Hispanic	7	6	20	17	48	40	46	38	121	12	11
Other	1	11	2	22	3	33	3	33	9	10	11
Education											
0-8 grades	6	10	11	18	20	33	23	38	60	11	10
Some high school	8	5	28	17	56	33	77	46	169	12	11
Graduated high school	6	4	29	17	52	31	81	48	168	12	11
College	3	2	13	10	53	42	56	45	125	13	11
Place of most care											
Hospital clinic	6	5	15	12	49	38	60	46	130	13	11
Local health dept.	3	2	25	15	50	31	85	52	163	13	12
Doctor's office	7	4	37	20	68	36	76	40	188	12	11
Midwife service	.	.	.	.	.	.	1	100	1	20	.
Combination/other	7	17	4	10	14	35	15	38	40	11	10
Birth weight											
Not low (over 2500 grams)	17	4	58	12	167	36	226	48	468	13	11
Very low or low	6	11	23	43	14	26	11	20	54	9	7

[a]Each range includes pregnancies with self-reported medical complications. Specifically, 1-4 includes 6 such cases, 5-8 includes 18 such cases, 9-12 includes 50 such cases, and 13+ includes 116 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and including such pregnancies increases the mean.

Table VII.3:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women With Pregnancies of 36-38 Weeks (1986-87)

	No. and percent of women by range of visits[a]												
	0		1-4		5-8		9-12		13+		Total		
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Totals	5	1.94	40	15.50	71	27.52	82	31.78	60	23.26	258	9.14	7.80
Insurance status													
Medicaid	1	0.85	16	13.68	37	31.62	37	31.62	26	22.22	117	9.46	7.22
Uninsured	4	2.84	24	17.02	34	24.11	45	31.91	34	24.11	141	8.87	8.17
Community type													
Largest urban	3	2.27	24	18.18	34	25.76	47	35.61	24	18.18	132	8.38	7.90
Other urban	2	2.90	8	11.59	20	28.99	19	27.54	20	28.99	69	9.94	7.33
Rural	.	.	8	14.04	17	29.82	16	28.07	16	28.07	57	9.91	8.06
Maternal age													
17 and under	.	.	4	13.33	9	30.00	9	30.00	8	26.67	30	9.37	8.72
18-19	2	4.44	12	26.67	10	22.22	14	31.11	7	15.56	45	7.80	6.77
20-24	.	.	8	9.09	27	30.68	29	32.95	24	27.27	88	9.93	7.61
25-29	2	3.77	13	24.53	15	28.30	12	22.64	11	20.75	53	8.00	6.85
30-34	1	3.23	2	6.45	8	25.81	16	51.61	4	12.90	31	9.10	9.55
35 and over	.	.	1	9.09	2	18.18	2	18.18	6	54.55	11	13.18	11.25
Race													
White	1	1.19	6	7.14	17	20.24	28	33.33	32	38.10	84	11.12	9.00
Black	.	.	16	20.25	31	39.24	20	25.32	12	15.19	79	8.11	6.63
Hispanic	4	4.55	16	18.18	21	23.86	32	36.36	15	17.05	88	8.27	7.72
Other	.	.	2	28.57	2	28.57	2	28.57	1	14.29	7	7.71	8.80
Education													
0-8 grades	1	2.44	8	19.51	10	24.39	14	34.15	8	19.51	41	8.63	8.24
Some high school	2	2.04	17	17.35	30	30.61	29	29.59	20	20.41	98	8.95	7.69
Graduated high school	2	2.70	11	14.86	19	25.68	23	31.08	19	25.68	74	9.05	7.29
College	.	.	4	8.89	12	26.67	16	35.56	13	28.89	45	10.13	8.39
Place of care													
Hospital clinic	.	.	7	12.28	16	28.07	16	28.07	18	31.58	57	10.09	8.16
Local health dept.	.	.	12	11.76	30	29.41	35	34.31	25	24.51	102	9.47	8.52
Doctor's office	.	.	13	17.11	22	28.95	25	32.89	16	21.05	76	9.21	7.98
Midwife service	.	.	.	.	2	66.67	1	33.33	.	.	3	8.00	8.00
Combination/other	.	.	8	53.33	1	6.67	5	33.33	1	6.67	15	6.13	4.44
Birth weight													
Not low (over 2500 grams)	5	2.35	32	15.02	53	24.88	73	34.27	50	23.47	213	9.25	7.99
Very low or low	.	.	8	17.78	18	40.00	9	20.00	10	22.22	45	8.58	6.90

[a]Each range includes pregnancies with self-reported medical complications. Specifically, 1-4 includes 9 such cases, 5-8 includes 14 such cases, 9-12 includes 34 such cases, and 13+ includes 38 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and including such pregnancies would increase the mean.

Table VII.4:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women With Pregnancies of 39-40 Weeks (1986-87)

	No. and percent of women by range of visits[a]												
	0		1-4		5-8		9-12		13+		Total		
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Totals	13	2.33	53	9.50	129	23.12	202	36.20	161	28.85	558	10.17	9.26
Insurance status													
Medicaid	3	1.01	16	5.39	71	23.91	110	37.04	97	32.66	297	10.82	10.13
Uninsured	10	3.83	37	14.18	58	22.22	92	35.25	64	24.52	261	9.42	8.43
Community type													
Largest urban	6	2.56	31	13.25	69	29.49	86	36.75	42	17.95	234	8.74	8.33
Other urban	5	2.96	17	10.06	23	13.61	54	31.95	70	41.42	169	11.28	9.73
Rural	2	1.29	5	3.23	37	23.87	62	40.00	49	31.61	155	11.10	10.36
Maternal age													
17 and under	3	5.77	6	11.54	9	17.31	20	38.46	14	26.92	52	9.62	9.21
18-19	.	.	9	10.71	18	21.43	32	38.10	25	29.76	84	10.62	9.50
20-24	6	2.76	22	10.14	53	24.42	71	32.72	65	29.95	217	10.05	9.13
25-29	2	1.49	11	8.21	37	27.61	47	35.07	37	27.61	134	10.17	9.14
30-34	2	4.00	3	6.00	9	18.00	22	44.00	14	28.00	50	10.36	9.72
35 and over	.	.	2	9.52	3	14.29	10	47.62	6	28.57	21	10.52	9.58
Race													
White	3	1.46	8	3.88	34	16.50	87	42.23	74	35.92	206	11.33	10.16
Black	5	2.92	19	11.11	48	28.07	55	32.16	44	25.73	171	9.66	8.86
Hispanic	5	2.87	26	14.94	44	25.29	58	33.33	41	23.56	174	9.31	8.73
Other	.	.	.	.	3	42.86	2	28.57	2	28.57	7	9.71	9.17
Education													
0-8 grades	.	.	11	14.47	23	30.26	27	35.53	15	19.74	76	8.89	8.49
Some high school	7	3.80	20	10.87	45	24.46	58	31.52	54	29.35	184	9.91	8.85
Graduated high school	2	1.14	12	6.82	40	22.73	62	35.23	60	34.09	176	10.86	9.90
College	4	3.28	10	8.20	21	17.21	55	45.08	32	26.23	122	10.35	9.46
Place of care													
Hospital clinic	.	.	14	9.79	30	20.98	57	39.86	42	29.37	143	10.65	9.65
Local health dept.	.	.	20	10.93	46	25.14	63	34.43	54	29.51	183	10.13	9.20
Doctor's office	.	.	14	7.87	41	23.03	67	37.64	56	31.46	178	10.72	9.98
Midwife service	.	.	.	.	.	.	.	.	1	100.00	1	20.00	
Combination/other	.	.	5	12.50	12	30.00	15	37.50	8	20.00	40	9.25	9.46
Birth weight													
Not low (over 2500 grams)	12	2.21	53	9.74	126	23.16	196	36.03	157	28.86	544	10.16	9.25
Very low or low	1	7.14	.	.	3	21.43	6	42.86	4	28.57	14	10.43	9.60

[a]Each range includes pregnancies with self-reported medical complications. Specifically, 1-4 includes 7 such cases, 5-8 includes 26 such cases, 9-12 includes 60 such cases, and 13+ includes 67 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and including such pregnancies would increase the mean.

Table VII.5:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women With Pregnancies of 41-43 Weeks (1986-87)

	No. and percent of women by range of visits[a]												
	0		1-4		5-8		9-12		13+		Total		
Demographic factor	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	no.	Mean	Mean[b]
Totals	5	2.02	22	8.91	49	19.84	71	28.74	100	40.49	247	11.20	10.14
Insurance status													
Medicaid	1	0.70	11	7.75	30	21.13	43	30.28	57	40.14	142	11.45	10.35
Uninsured	4	3.81	11	10.48	19	18.10	28	26.67	43	40.95	105	10.86	9.88
Community type													
Largest urban	5	4.95	16	15.84	20	19.80	32	31.68	28	27.72	101	9.49	8.49
Other urban	.	.	4	5.63	14	19.72	21	29.58	32	45.07	71	12.28	11.48
Rural	.	.	2	2.67	15	20.00	18	24.00	40	53.33	75	12.48	11.12
Maternal age													
17 and under	.	.	2	8.00	6	24.00	7	28.00	10	40.00	25	11.20	10.06
18-19	1	2.94	1	2.94	7	20.59	10	29.41	15	44.12	34	11.65	10.86
20-24	3	3.13	8	8.33	16	16.67	33	34.38	36	37.50	96	10.99	9.59
25-29	.	.	7	12.50	11	19.64	12	21.43	26	46.43	56	11.82	10.97
30-34	1	4.17	3	12.50	6	25.00	5	20.83	9	37.50	24	10.33	8.71
35 and over	.	.	1	8.33	3	25.00	4	33.33	4	33.33	12	10.42	11.00
Race													
White	1	1.00	6	6.00	9	9.00	28	28.00	56	56.00	100	12.93	11.71
Black	2	2.20	8	8.79	26	28.57	31	34.07	24	26.37	91	9.90	9.21
Hispanic	2	3.77	8	15.09	13	24.53	11	20.75	19	35.85	53	10.15	9.10
Other	.	.	.	.	1	33.33	1	33.33	1	33.33	3	11.33	12.00
Education													
0-8 grades	1	2.78	6	16.67	14	38.89	3	8.33	12	33.33	36	9.31	8.08
Some high school	3	3.45	9	10.34	15	17.24	28	32.18	32	36.78	87	10.82	9.59
Graduated high school	1	1.43	6	8.57	11	15.71	22	31.43	30	42.86	70	11.57	11.04
College	.	.	1	1.85	9	16.67	18	33.33	26	48.15	54	12.59	11.47
Place of care													
Hospital clinic	.	.	4	6.06	10	15.15	21	31.82	31	46.97	66	12.73	11.43
Local health depth	.	.	8	9.41	19	22.35	22	25.88	36	42.35	85	11.01	10.43
Doctor's office	.	.	7	9.33	20	26.67	25	33.33	23	30.67	75	10.56	9.87
Combination/other	.	.	3	18.75	.	.	3	18.75	10	62.50	16	12.38	10.00
Birth weight													
Not low (over 2500 grams)	5	2.03	22	8.94	49	19.92	71	28.86	99	40.24	246	11.17	10.14
Very low or low	.	.	.	.	.	.	.	.	1	100.00	1	19.00	

[a]Each range includes pregnancies with self-reported medical complications. Specifically, 1-4 includes 5 such cases, 5-8 includes 10 such cases, 9-12 includes 18 such cases, and 13+ includes 45 such cases.

[b]This mean was calculated to exclude complicated pregnancies because this is how the privately insured women's mean was developed, and including such pregnancies would increase the mean.

Adequacy of Prenatal Care Obtained by Medicaid Recipients and Uninsured Women, by Selected Demographics

The following tables provide "double demographics" on the 1,157 women interviewed. For example, table VIII.1, profiles the care obtained by the 605 Medicaid recipients interviewed by community, maternal age, race, education, place of care, and birth weight.

Table VIII.1:

Adequacy of Prenatal Care for Medicaid Recipients, by Demographics (1986-87)

Demographic factor	Inadequate[a] No.	Inadequate[a] Percent	Intermediate[a] No.	Intermediate[a] Percent	Adequate[a] No.	Adequate[a] Percent	Total no.
Totals	93	15.37	264	43.64	248	40.99	605
Community type							
Largest urban	42	21.32	94	47.72	61	30.96	197
Other urban	30	15.15	81	40.91	87	43.94	198
Rural	21	10.00	89	42.38	100	47.62	210
Maternal age							
17 and under	11	19.64	28	50.00	17	30.36	56
18-19	13	13.13	51	51.52	35	35.35	99
20-24	35	14.83	95	40.25	106	44.92	236
25-29	24	17.52	60	43.80	53	38.69	137
30-34	6	10.17	21	35.59	32	54.24	59
35 and over	4	22.22	9	50.00	5	27.78	18
Race							
White	25	10.37	81	33.61	135	56.02	241
Black	55	20.83	130	49.24	79	29.92	264
Hispanic	11	12.22	46	51.11	33	36.67	90
Other	2	20.00	7	70.00	1	10.00	10
Education							
0-8 grades	6	18.75	16	50.00	10	31.25	32
Some high school	50	20.49	110	45.08	84	34.43	244
Graduated high school	24	11.88	90	44.55	88	43.56	202
College	13	10.24	48	37.80	66	51.97	127
Place of care							
Hospital clinic	24	13.95	79	45.93	69	40.12	172
Local health dept.	17	12.23	63	45.32	59	42.45	139
Doctor's office	28	11.81	106	44.73	103	43.46	237
Midwife service	.	.	1	50.00	1	50.00	2
Combination/other	18	36.73	15	30.61	16	32.65	49
Birth weight							
Not low (over 2500 grams)	74	13.86	234	43.82	226	42.32	534
Very low or low	19	26.76	30	42.25	22	30.99	71

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 29 such cases, intermediate includes 85 such cases, and adequate includes 116 such cases.

Table VIII.2:

Adequacy of Prenatal Care for Uninsured Women, by Demographics (1986-87)

Demographic factor	Inadequate[a] No.	Inadequate[a] Percent	Intermediate[a] No.	Intermediate[a] Percent	Adequate[a] No.	Adequate[a] Percent	Total no.
Totals	137	24.82	232	42.03	183	33.15	552
Community type							
Largest urban	86	27.74	139	44.84	85	27.42	310
Other urban	36	24.00	54	36.00	60	40.00	150
Rural	15	16.30	39	42.39	38	41.30	92
Maternal age							
17 and under	18	27.69	29	44.62	18	27.69	65
18-19	24	29.63	33	40.74	24	29.63	81
20-24	44	22.45	87	44.39	65	33.16	196
25-29	25	21.01	54	45.38	40	33.61	119
30-34	18	30.51	17	28.81	24	40.68	59
35 and over	8	25.00	12	37.50	12	37.50	32
Race							
White	28	15.56	72	40.00	80	44.44	180
Black	33	27.05	53	43.44	36	29.51	122
Hispanic	76	31.28	105	43.21	62	25.51	243
Other	.	.	2	28.57	5	71.43	7
Education							
0-8 grades	38	29.23	59	45.38	33	25.38	130
Some high school	45	27.11	68	40.96	53	31.93	166
Graduated high school	30	20.98	63	44.06	50	34.97	143
College	24	21.24	42	37.17	47	41.59	113
Place of care							
Hospital clinic	26	22.22	50	42.74	41	35.04	117
Local health dept.	50	19.53	127	49.61	79	30.86	256
Doctor's office	30	25.00	40	33.33	50	41.67	120
Midwife service	.	.	3	100.00	.	.	3
Combination/other	7	21.88	12	37.50	13	40.63	32
Birth weight							
Not low (over 2500 grams)	119	24.29	204	41.63	167	34.08	490
Very low or low	18	29.03	28	45.16	16	25.81	62

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 21 such cases, intermediate includes 64 such cases, and adequate includes 58 such cases.

Table VIII.3:

Adequacy of Prenatal Care for Medicaid Recipients and Uninsured Women in the Largest Urban Areas,[a] by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total no.
	No.	Percent	No.	Percent	No.	Percent	
Totals	128	25.25	233	45.96	146	28.80	507
Insurance status							
Medicaid	42	21.32	94	47.72	61	30.96	197
Uninsured	86	27.74	139	44.84	85	27.42	310
Maternal age							
17 and under	13	26.00	25	50.00	12	24.00	50
18-19	17	25.00	33	48.53	18	26.47	68
20-24	42	24.14	86	49.43	46	26.44	174
25-29	30	23.81	64	50.79	32	25.40	126
30-34	18	28.13	17	26.56	29	45.31	64
35 and over	8	32.00	8	32.00	9	36.00	25
Race							
White	11	20.00	23	41.82	21	38.18	55
Black	41	25.31	72	44.44	49	30.25	162
Hispanic	76	26.76	135	47.54	73	25.70	284
Other	.	.	3	50.00	3	50.00	6
Education							
0-8 grades	36	29.51	59	48.36	27	22.13	122
Some high school	46	28.22	74	45.40	43	26.38	163
Graduated high school	26	20.97	59	47.58	39	31.45	124
College	20	20.41	41	41.84	37	37.76	98
Place of care							
Hospital clinic	42	22.70	86	46.49	57	30.81	185
Local health dept.	44	19.73	113	50.67	66	29.60	223
Doctor's office	17	31.48	20	37.04	17	31.48	54
Midwife service	.	.	4	80.00	1	20.00	5
Combination/other	6	28.57	10	47.62	5	23.81	21
Birth weight							
Not low (over 2500 grams)	112	24.78	203	44.91	137	30.31	452
Very low or low	16	29.09	30	54.55	9	16.36	55

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 26 such cases, intermediate includes 71 such cases, and adequate includes 45 such cases.

Table VIII.4:

Adequacy of Prenatal Care for Medicaid Recipients and Uninsured Women in Other Urban Areas,[a] by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	66	18.97	135	38.79	147	42.24	348
Insurance status							
Medicaid	30	15.15	81	40.91	87	43.94	198
Uninsured	36	24.00	54	36.00	60	40.00	150
Maternal age							
17 and under	11	31.43	16	45.71	8	22.86	35
18-19	12	21.05	29	50.88	16	28.07	57
20-24	27	18.75	48	33.33	69	47.92	144
25-29	11	17.19	21	32.81	32	50.00	64
30-34	4	11.11	15	41.67	17	47.22	36
35 and over	1	8.33	6	50.00	5	41.67	12
Race							
White	30	15.54	67	34.72	96	49.74	193
Black	27	22.69	54	45.38	38	31.93	119
Hispanic	8	28.57	9	32.14	11	39.29	28
Other	1	12.50	5	62.50	2	25.00	8
Education							
0-8 grades	6	23.08	8	30.77	12	46.15	26
Some high school	31	25.00	50	40.32	43	34.68	124
Graduated high school	15	13.04	51	44.35	49	42.61	115
College	14	16.87	26	31.33	43	51.81	83
Place of most care							
Hospital clinic	8	9.30	34	39.53	44	51.16	86
Local health dept.	10	10.42	47	48.96	39	40.63	96
Doctor's office	28	21.21	49	37.12	55	41.67	132
Combination/other	12	46.15	5	19.23	9	34.62	26
Birth weight							
Not low (over 2500 grams)	50	16.89	117	39.53	129	43.58	296
Very low or low	16	30.77	18	34.62	18	34.62	52

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 14 such cases, intermediate includes 48 such cases, and adequate includes 63 such cases.

Table VIII.5:

Adequacy of Prenatal Care for Medicaid Recipients and Uninsured Women in Rural Areas, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	36	11.92	128	42.38	138	45.70	302
Insurance status							
Medicaid	21	10.00	89	42.38	100	47.62	210
Uninsured	15	16.30	39	42.39	38	41.30	92
Maternal age							
17 and under	5	13.89	16	44.44	15	41.67	36
18-19	8	14.55	22	40.00	25	45.45	55
20-24	10	8.77	48	42.11	56	49.12	114
25-29	8	12.12	29	43.94	29	43.94	66
30-34	2	11.11	6	33.33	10	55.56	18
35 and over	3	23.08	7	53.85	3	23.08	13
Race							
White	12	6.94	63	36.42	98	56.65	173
Black	20	19.05	57	54.29	28	26.67	105
Hispanic	3	14.29	7	33.33	11	52.38	21
Other	1	33.33	1	33.33	1	33.33	3
Education							
0-8 grades	2	14.29	8	57.14	4	28.57	14
Some high school	18	14.63	54	43.90	51	41.46	123
Graduated high school	13	12.26	43	40.57	50	47.17	106
College	3	5.08	23	38.98	33	55.93	59
Place of most care							
Hospital clinic	.	.	9	50.00	9	50.00	18
Local health dept.	13	17.11	30	39.47	33	43.42	76
Doctor's office	13	7.60	77	45.03	81	47.37	171
Combination/other	7	20.59	12	35.29	15	44.12	34
Birth weight							
Not low (over 2500 grams)	31	11.23	118	42.75	127	46.01	276
Very low or low	5	19.23	10	38.46	11	42.31	26

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 10 such cases, intermediate includes 30 such cases, and adequate includes 66 such cases.

Table VIII.6:

Adequacy of Prenatal Care for White Medicaid Recipients and Uninsured Women, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	53	12.59	153	36.34	215	51.07	421
Insurance status							
Medicaid	25	10.37	81	33.61	135	56.02	241
Uninsured	28	15.56	72	40.00	80	44.44	180
Community type							
Largest urban	11	20.00	23	41.82	21	38.18	55
Other urban	30	15.54	67	34.72	96	49.74	193
Rural	12	6.94	63	36.42	98	56.65	173
Maternal age							
17 and under	6	13.95	19	44.19	18	41.86	43
18-19	9	12.16	35	47.30	30	40.54	74
20-24	21	12.14	58	33.53	94	54.34	173
25-29	8	9.41	29	34.12	48	56.47	85
30-34	5	17.24	7	24.14	17	58.62	29
35 and over	4	23.53	5	29.41	8	47.06	17
Education							
0-8 grades	2	8.70	12	52.17	9	39.13	23
Some high school	26	16.15	62	38.51	73	45.34	161
Graduated high school	15	10.87	53	38.41	70	50.72	138
College	10	10.10	26	26.26	63	63.64	99
Place of most care							
Hospital clinic	9	9.18	39	39.80	50	51.02	98
Local health dept.	7	7.29	38	39.58	51	53.13	96
Doctor's office	21	11.54	63	34.62	98	53.85	182
Midwife service	.	.	1	100.00	.	.	1
Combination/other	10	26.32	12	31.58	16	42.11	38
Birth weight							
Not low (over 2500 grams)	46	12.17	134	35.45	198	52.38	378
Very low or low	7	16.28	19	44.19	17	39.53	43

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 14 such cases, intermediate includes 47 such cases, and adequate includes 100 such cases.

Table VIII.7:

Adequacy of Prenatal Care for Black Medicaid Recipients and Uninsured Women, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	88	22.80	183	47.41	115	29.79	386
Insurance status							
Medicaid	55	20.83	130	49.24	79	29.92	264
Uninsured	33	27.05	53	43.44	36	29.51	122
Community type							
Largest urban	41	25.31	72	44.44	49	30.25	162
Other urban	27	22.69	54	45.38	38	31.93	119
Rural	20	19.05	57	54.29	28	26.67	105
Maternal age							
17 and under	16	30.19	26	49.06	11	20.75	53
18-19	11	18.97	30	51.72	17	29.31	58
20-24	32	21.92	67	45.89	47	32.19	146
25-29	21	27.27	36	46.75	20	25.97	77
30-34	6	15.38	15	38.46	18	46.15	39
35 and over	2	15.38	9	69.23	2	15.38	13
Education							
0-8 grades	.	.	7	70.00	3	30.00	10
Some high school	45	31.91	65	46.10	31	21.99	141
Graduated high school	29	19.86	68	46.58	49	33.56	146
College	14	15.73	43	48.31	32	35.96	89
Place of most care							
Hospital clinic	23	21.70	46	43.40	37	34.91	106
Local health dept.	25	18.38	72	52.94	39	28.68	136
Doctor's office	20	17.86	57	50.89	35	31.25	112
Midwife service	.	.	2	66.67	1	33.33	3
Combination/other	10	52.63	6	31.58	3	15.79	19
Birth weight							
Not low (over 2500 grams)	66	20.50	156	48.45	100	31.06	322
Very low or low	22	34.38	27	42.19	15	23.44	64

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 18 such cases, intermediate includes 54 such cases, and adequate includes 46 such cases.

Table VIII.8:

Adequacy of Prenatal Care for Hispanic Medicaid Recipients and Uninsured Women, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	87	26.13	151	45.35	95	28.53	333
Insurance status							
Medicaid	11	12.22	46	51.11	33	36.67	90
Uninsured	76	31.28	105	43.21	62	25.51	243
Community type							
Largest urban	76	26.76	135	47.54	73	25.70	284
Other urban	8	28.57	9	32.14	11	39.29	28
Rural	3	14.29	7	33.33	11	52.38	21
Maternal age							
17 and under	7	28.00	12	48.00	6	24.00	25
18-19	17	36.17	19	40.43	11	23.40	47
20-24	25	23.58	52	49.06	29	27.36	106
25-29	19	21.59	46	52.27	23	26.14	88
30-34	13	27.66	15	31.91	19	40.43	47
35 and over	6	30.00	7	35.00	7	35.00	20
Education							
0-8 grades	41	32.28	55	43.31	31	24.41	127
Some high school	24	22.64	49	46.23	33	31.13	106
Graduated high school	9	16.36	30	54.55	16	29.09	55
College	13	28.89	17	37.78	15	33.33	45
Place of most care							
Hospital clinic	18	21.95	43	52.44	21	25.61	82
Local health dept.	35	21.74	79	49.07	47	29.19	161
Doctor's office	16	30.77	19	36.54	17	32.69	52
Midwife service	.	.	1	100.00	.	.	1
Combination/other	4	17.39	9	39.13	10	43.48	23
Birth weight							
Not low (over 2500 grams)	80	25.81	139	44.84	91	29.35	310
Very low or low	7	30.43	12	52.17	4	17.39	23

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 17 such cases, intermediate includes 45 such cases, and adequate includes 28 such cases.

Table VIII.9:

Adequacy of Prenatal Care for Medicaid Recipients and Uninsured Women Receiving Most of Their Care at a Hospital Clinic, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	50	17.30	129	44.64	110	38.06	289
Insurance status							
Medicaid	24	13.95	79	45.93	69	40.12	172
Uninsured	26	22.22	50	42.74	41	35.04	117
Community type							
Largest urban	42	22.70	86	46.49	57	30.81	185
Other urban	8	9.30	34	39.53	44	51.16	86
Rural	.	.	9	50.00	9	50.00	18
Maternal age							
17 and under	7	20.00	17	48.57	11	31.43	35
18-19	5	10.87	26	56.52	15	32.61	46
20-24	19	17.92	48	45.28	39	36.79	106
25-29	11	19.30	24	42.11	22	38.60	57
30-34	3	12.00	7	28.00	15	60.00	25
35 and over	5	25.00	7	35.00	8	40.00	20
Race							
White	9	9.18	39	39.80	50	51.02	98
Black	23	21.70	46	43.40	37	34.91	106
Hispanic	18	21.95	43	52.44	21	25.61	82
Other	.	.	1	33.33	2	66.67	3
Education							
0-8 grades	9	29.03	13	41.94	9	29.03	31
Some high school	23	20.72	55	49.55	33	29.73	111
Graduated high school	11	13.58	39	48.15	31	38.27	81
College	7	10.61	22	33.33	37	56.06	66
Birth weight							
Not low (over 2500 grams)	44	16.73	115	43.73	104	39.54	263
Very low or low	6	23.08	14	53.85	6	23.08	26

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 16 such cases, intermediate includes 47 such cases, and adequate includes 51 such cases.

Table VIII.10:

Adequacy of Prenatal Care for Medicaid Recipients and Uninsured Women Receiving Most of Their Care at a Local Health Department Clinic, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	67	16.92	190	47.98	139	35.10	396
Insurance status							
Medicaid	17	12.23	63	45.32	59	42.45	139
Uninsured	50	19.46	127	49.42	80	31.13	257
Community type							
Largest urban	44	19.73	113	50.67	66	29.60	223
Other urban	10	10.42	47	48.96	39	40.63	96
Rural	13	16.88	30	38.96	34	44.16	77
Maternal age							
17 and under	8	19.05	23	54.76	11	26.19	42
18-19	12	21.82	26	47.27	17	30.91	55
20-24	20	14.18	64	45.39	57	40.43	141
25-29	15	15.15	51	51.52	33	33.33	99
30-34	9	20.45	18	40.91	17	38.64	44
35 and over	3	20.00	8	53.33	4	26.67	15
Race							
White	7	7.22	38	39.18	52	53.61	97
Black	25	18.38	72	52.94	39	28.68	136
Hispanic	35	21.74	79	49.07	47	29.19	161
Other	.	.	1	50.00	1	50.00	2
Education							
0-8 grades	16	19.28	46	55.42	21	25.30	83
Some high school	25	18.12	59	42.75	54	39.13	138
Graduated high school	14	12.28	57	50.00	43	37.72	114
College	12	19.67	28	45.90	21	34.43	61
Birth weight							
Not low (over 2500 grams)	61	17.18	166	46.76	128	36.06	355
Very low or low	6	14.63	24	58.54	11	26.83	41

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 10 such cases, intermediate includes 49 such cases, and adequate includes 49 such cases.

Table VIII.11

Adequacy of Prenatal Care for Medicaid Recipients and Uninsured Women Receiving Most of Their Care at a Doctor's Office, by Demographics (1986-87)

Demographic factor	Inadequate[a]		Intermediate[a]		Adequate[a]		Total
	No.	Percent	No.	Percent	No.	Percent	no.
Totals	59	16.48	146	40.78	153	42.74	358
Insurance status							
Medicaid	28	11.81	106	44.73	103	43.46	237
Uninsured	31	25.62	40	33.06	50	41.32	121
Community type							
Largest urban	18	32.73	20	36.36	17	30.91	55
Other urban	28	21.21	49	37.12	55	41.67	132
Rural	13	7.60	77	45.03	81	47.37	171
Maternal age							
17 and under	7	23.33	15	50.00	8	26.67	30
18-19	9	16.07	24	42.86	23	41.07	56
20-24	20	14.29	57	40.71	63	45.00	140
25-29	14	17.07	34	41.46	34	41.46	82
30-34	6	15.79	11	28.95	21	55.26	38
35 and over	3	25.00	5	41.67	4	33.33	12
Race							
White	22	12.02	63	34.43	98	53.55	183
Black	20	17.86	57	50.89	35	31.25	112
Hispanic	16	30.77	19	36.54	17	32.69	52
Other	1	9.09	7	63.64	3	27.27	11
Education							
0-8 grades	13	39.39	13	39.39	7	21.21	33
Some high school	19	16.96	51	45.54	42	37.50	112
Graduated high school	13	11.30	47	40.87	55	47.83	115
College	14	14.29	35	35.71	49	50.00	98
Birth weight							
Not low (over 2500 grams)	48	15.34	130	41.53	135	43.13	313
Very low or low	11	24.44	16	35.56	18	40.00	45

[a]Each category includes pregnancies with self-reported medical complications. Specifically, inadequate includes 16 such cases, intermediate includes 41 such cases, and adequate includes 63 such cases.

Characteristics of Women Who Obtained No Prenatal Care

Of the 1,157 women we interviewed, 30 or 3 percent obtained no prenatal care. Generally, these women were uninsured, minorities, and from the largest urban areas. For example, 11 of the 30 women who obtained no prenatal care were interviewed at the Los Angeles County-USC Medical Center. Of these 11 women, 10 were Hispanic and all 11 were uninsured. The remaining 19 women, who obtained no care, came from 12 different hospitals with no hospital having more than 2 women who received no care.

Six (20 percent) of the women we interviewed who had no prenatal care had low birth-weight babies. This is consistent with the National Center for Health Statistics study we discussed in chapter 1, which states that babies born to women who obtain no prenatal care are about 3 times more likely to be of low birth weight than babies born to women who obtain early care. In addition, of the 30 women who obtained no care:

- 24 were uninsured, while 6 were Medicaid recipients;
- 19 were from the largest urban areas, 8 were from other urban areas, and 3 were from rural areas;
- 11 were between the ages of 20-24, while the other age groups each had 5 or fewer women;
- 14 were Hispanic, 10 were black, and 6 were white; and
- 14 had some high school, 8 had graduated from high school, 4 had some college experience, and 4 had 8 years of education or less.

Prenatal Visits Made by Medicaid Recipients and Uninsured Women, by Month of First Visit

The number of prenatal visits made by the Medicaid recipients and uninsured women interviewed are shown in tables X.1 through X.4 according to the month of the first visit. Table X.1 includes only Medicaid recipients and uninsured women who obtained insufficient prenatal care. Table X.2 includes all 1,157 women interviewed, while table X.3 includes only the 784 women without medical complications. For comparison with table X.3, table X.4 includes the 4,047 privately insured women.

Table X.1:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women Obtaining Insufficient Care, by Month of First Visit (1986-87)

No. of prenatal visits	No. of women making first visit in					Total no. of women[a]
	No care	1st-3rd month	4th month	5th-6th month	7th-9th month	
0	30	0	0	0	0	30 (4)
1-4	0	23	19	36	66	144 (20)
5-8	0	68	51	101	44	264 (36)
9-12	0	0	83	97	15	195 (27)
13+	0	0	60	32	1	93 (13)
Totals	30	91	213	266	126	726
Percents	4	13	29	37	17	(100)

[a]Figures in parentheses are percents.

Table X.2:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women, by Month of First Visit (1986-87)

No. of prenatal visits	All births	Prenatal care began in: 1st-3rd month		4th month		5th-6th month		7th-9th month		No prenatal care	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Totals	1,157	522	45.12	213	18.41	266	22.99	126	10.89	30	2.59
None	30	.	.	.	.	.	.	.	.	30	100.00
1-2	69	10	14.49	5	7.25	17	24.64	37	53.62	.	.
3-4	75	13	17.33	14	18.67	19	25.33	29	38.67	.	.
5-6	120	24	20.00	24	20.00	46	38.33	26	21.67	.	.
7-8	157	57	36.31	27	17.20	55	35.03	18	11.46	.	.
9-10	195	85	43.59	41	21.03	59	30.26	10	5.13	.	.
11-12	181	96	53.04	42	23.20	38	20.99	5	2.76	.	.
13-14	139	93	66.91	29	20.86	17	12.23	.	.	.	.
15-16	91	65	71.43	14	15.38	11	12.09	1	1.10	.	.
17-18	43	33	76.74	8	18.60	2	4.65	.	.	.	.
19 or more	57	46	80.70	9	15.79	2	3.51	.	.	.	.

Table X.3:

Prenatal Visits Made by Medicaid Recipients and Uninsured Women With Uncomplicated Pregnancies, by Month of First Visit (1986-87)

No. of prenatal visits	All births	Prenatal care began in: 1st-3rd month		4th month		5th-6th month		7th-9th month		No prenatal care	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Totals	784	332	42.35	150	19.13	182	23.21	92	11.73	28	3.57
None	28	.	.	.	.	.	.	.	.	28	100.00
1-2	56	9	16.07	4	7.14	15	26.79	28	50.00	.	.
3-4	60	8	13.33	10	16.67	18	30.00	24	40.00	.	.
5-6	93	21	22.58	19	20.43	36	38.71	17	18.28	.	.
7-8	121	42	34.71	23	19.01	41	33.88	15	12.40	.	.
9-10	134	60	44.78	31	23.13	36	26.87	7	5.22	.	.
11-12	119	71	59.66	26	21.85	22	18.49	.	.	.	.
13-14	92	63	68.48	22	23.91	7	7.61	.	.	.	.
15-16	50	35	70.00	8	16.00	6	12.00	1	2.00	.	.
17-18	20	15	75.00	4	20.00	1	5.00	.	.	.	.
19 or more	11	8	72.73	3	27.27	.	.	.	.	.	.

Table X.4:

Prenatal Visits Made by Privately Insured Women With Uncomplicated Pregnancies, by Month of First Visit (1986-87)

No. of prenatal visits	All births	Prenatal care began in: 1st-3rd month		4th month		5th-6th month		7th-9th month	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent
Totals	4,047	3,387	83.69	332	8.20	244	6.03	84	2.08
None	0	0	0.00	0	0.00	0	0.00	0	0.00
1-2	7	0	0.00	1	14.29	1	14.29	5	71.42
3-4	26	2	7.69	2	7.69	8	30.77	14	53.85
5-6	71	19	26.76	7	9.86	24	33.80	21	29.58
7-8	225	106	47.11	39	17.33	57	25.34	23	10.22
9-10	626	458	73.16	74	11.82	79	12.62	15	2.40
11-12	1,043	873	83.70	120	11.51	46	4.41	4	.38
13-14	1,116	1,030	92.29	61	5.47	23	2.06	2	.18
15-16	652	626	96.01	21	3.22	5	.77	0	0.00
17-18	185	181	97.84	4	2.16	0	0.00	0	0.00
19 or more	96	92	95.83	3	3.13	1	1.04	0	0.00

Comparisons of Prenatal Care for Privately Insured and Medicaid Recipients and Uninsured Women With Uncomplicated Pregnancies, by Community

Prenatal care obtained by privately insured women is compared with that for Medicaid recipients and uninsured women by community for adequacy, timing, and number of prenatal visits in tables XI.1 through XI.3.

Table XI.1:

Adequacy of Prenatal Care, by Insurance Status and Community (1986-87)

State/ community	Adequacy of care (percent of community totals)						Total nos. of women[a]	
	Inadequate		Intermediate		Adequate			
	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured
Totals	2	20	17	46	81	34	4,047	756
Alabama								
Birmingham	0	9	11	45	89	45	83	22
Huntsville	5	33	13	33	83	33	103	12
Montgomery	3	29	18	53	79	18	97	17
Selma	0	11	25	67	75	22	24	36
Troy	0	7	100	86	0	7	4	14
California								
Los Angeles	3	24	18	48	79	28	702	140
Bakersfield	2	38	20	33	78	29	103	24
Sacramento	2	0	30	50	68	50	155	16
El Centro	6	17	31	33	63	50	32	12
Ukiah	1	0	21	67	78	33	72	9
Georgia								
Atlanta	4	28	16	44	80	28	485	71
Columbus	8	14	24	52	68	33	76	21
Savannah	0	36	16	43	84	21	76	14
Americus	0	38	04	25	96	38	24	16
Brunswick	0	12	04	65	96	24	24	17
Illinois								
Chicago	4	31	19	49	76	20	504	45
Peoria	1	21	6	29	94	50	109	14
Rockford	0	26	18	32	82	42	84	19
Carbondale	3	17	31	39	66	43	35	23
Mattoon	0	11	23	56	77	33	35	9
Maine								
Augusta	2	25	11	0	87	75	93	4
Bangor	0	0	4	33	96	67	25	6
Massachusetts								
Boston	1	11	12	35	88	54	191	37

Appendix XI
Comparisons of Prenatal Care for Privately Insured and Medicaid Recipients and Uninsured Women With Uncomplicated Pregnancies, by Community

State/ community	Adequacy of care (percent of community totals)						Total nos. of women[a]	
	Inadequate		Intermediate		Adequate			
	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured
New York								
New York	0	21	14	55	85	25	205	53
Syracuse	1	8	8	42	92	50	153	12
Buffalo	0	38	13	25	86	38	209	8
Kingston	3	0	24	20	73	80	67	5
Auburn	0	0	15	38	85	63	48	8
West Virginia								
Charleston	4	29	14	53	81	18	70	17
Huntington	1	0	12	21	87	79	69	14
Bluefield	0	7	22	47	78	47	32	30
Clarksburg	4	9	32	45	63	45	68	11

Note: Percents may not total due to rounding.

[a]Includes only women with uncomplicated pregnancies.

Table XI.2:

Timing of First Prenatal Visit, by Insurance Status and Community (1986-87)

State/ community	Trimester of first visit (percent of community totals)						Total nos. of women[a]	
	1st		2nd		3rd			
	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured	Privately insured	Medicaid/ uninsured
Totals	88	44	14	44	2	12	4,047	756
Alabama								
Birmingham	90	45	10	45	0	9	83	22
Huntsville	83	42	13	33	5	25	103	12
Montgomery	80	24	16	71	3	6	97	17
Selma	83	39	17	53	0	8	24	36
Troy	0	36	100	64	0	0	4	14
California								
Los Angeles	82	39	16	44	3	17	702	140
Bakersfield	81	38	17	46	2	17	103	24
Sacramento	75	56	23	44	2	0	155	16
El Centro	66	50	28	33	6	17	32	12
Ukiah	81	33	18	67	1	0	72	9
Georgia								
Atlanta	83	45	14	42	3	13	485	71
Columbus	72	33	21	67	7	0	76	21
Savannah	89	36	11	29	0	36	76	14
Americus	96	44	4	19	0	38	24	16
Brunswick	96	29	4	71	0	0	24	17
Illinois								
Chicago	81	33	16	47	3	20	504	45
Peoria	94	71	6	14	1	14	109	14
Rockford	88	42	12	32	0	26	84	19
Carbondale	69	43	29	48	3	9	35	23
Mattoon	77	56	23	33	0	11	35	9
Maine								
Augusta	87	75	11	0	2	25	93	4
Bangor	100	83	0	17	0	0	25	6
Massachusetts								
Boston	92	62	8	32	1	5	181	37

State/ community	Trimester of first visit (percent of community totals) 1st Privately insured	1st Medicaid/ uninsured	2nd Privately insured	2nd Medicaid/ uninsured	3rd Privately insured	3rd Medicaid/ uninsured	Total nos. of women[a] Privately insured	Total nos. of women[a] Medicaid/ uninsured
New York								
New York	89	34	10	57	0	9	205	53
Syracuse	92	67	9	33	0	0	153	12
Buffalo	91	38	9	38	0	25	209	8
Kingston	84	80	15	20	1	0	67	5
Auburn	85	75	15	25	0	0	48	8
West Virginia								
Charleston	87	29	9	59	4	12	70	17
Huntington	88	79	10	21	1	0	69	14
Bluefield	81	60	19	33	0	7	32	30
Clarksburg	66	45	31	55	3	0	68	11

Note: Percents may not total due to rounding.

[a]Includes only women with uncomplicated pregnancies.

Table XI.3:

Prenatal Visits, by Insurance Status and Community (1986-87)

State/ community	No. of prenatal visits (percent of community totals) 1-4 PI[a]	1-4 M/U[a]	5-8 PI	5-8 M/U	9-12 PI	9-12 M/U	13+ PI	13+ M/U	Average no. of visits PI	Average no. of visits M/U
Totals	1	15	7	28	41	33	51	23	12.5	9.2
Alabama										
Birmingham	0	0	1	23	41	36	58	41	13.2	11.6
Huntsville	0	25	7	17	38	33	55	25	12.7	9.2
Montgomery	1	35	6	35	45	12	47	18	12.2	7.4
Selma	0	6	13	42	29	36	58	17	12.7	9.5
Troy	0	7	25	64	50	21	25	7	10.3	7.7
California										
Los Angeles	1	19	7	31	33	31	59	19	13.1	8.5
Bakersfield	0	33	5	17	45	13	50	38	12.6	8.5
Sacramento	0	0	11	38	43	44	46	19	12.5	10.2
El Centro	0	17	22	0	22	17	56	67	12.3	12.8
Ukiah	1	0	7	11	24	22	68	67	13.4	13.1
Georgia										
Atlanta	1	24	8	30	40	31	51	15	12.5	7.7
Columbus	4	14	11	10	34	52	51	24	11.8	9.8
Savannah	0	21	8	43	37	29	55	7	12.8	7.2
Americus	0	6	4	44	8	13	88	38	14.5	10.2
Brunswick	0	12	0	35	4	29	96	24	16.3	9.5
Illinois										
Chicago	2	24	12	33	42	27	44	16	11.8	8.0
Peoria	0	21	2	21	40	29	58	29	13.0	8.9
Rockford	0	11	7	21	50	32	43	37	12.1	11.3
Carbondale	0	13	9	22	31	52	60	13	12.3	9.0
Mattoon	0	11	6	56	66	33	29	0	11.3	7.7

State/ community	No. of prenatal visits (percent of community total) 1-4 PI[a]	1-4 M/U[a]	5-8 PI	5-8 M/U	9-12 PI	9-12 M/U	13+ PI	13+ M/U	Average no. of visits PI	Average no. of visits M/U
Maine										
Augusta	0	0	1	0	43	75	56	25	13.0	12.0
Bangor	0	0	4	33	64	17	32	50	11.4	11.2
Massachusetts										
Boston	0	8	6	19	49	57	46	16	12.4	10.0
New York										
New York	0	17	6	26	46	43	48	13	12.6	8.7
Syracuse	1	8	1	42	39	33	59	17	13.2	9.1
Buffalo	0	38	6	0	52	50	43	13	12.1	8.6
Kingston	1	0	15	20	58	40	25	40	10.9	11.0
Auburn	0	0	4	13	52	38	44	50	12.4	11.6
West Virginia										
Charleston	1	18	11	29	49	24	39	29	11.8	9.4
Huntington	0	0	3	0	43	57	54	43	12.6	12.5
Bluefield	0	3	13	33	69	33	19	30	11.0	10.4
Clarksburg	3	9	7	27	47	18	43	45	12.1	11.1

[a]PI - Privately insured women
M/U - Medicaid recipients or uninsured women

Note: Includes only women with uncomplicated pregnancies.

Barriers to Earlier or More Frequent Prenatal Care Cited by Medicaid Recipients and Uninsured Women at Participating Hospitals

The following tables provide details on the barriers to earlier or more frequent care cited by the Medicaid recipients and uninsured women interviewed at the 32 hospitals participating in our study. Table XII.1 includes all barriers cited by the 1,157 women interviewed; table XII.2, all barriers cited by women who obtained insufficient care; and table XII.3, the barriers the women who obtained insufficient care cited as being most important.

Appendix XII
Barriers to Earlier or More Frequent Prenatal Care Cited by Medicaid Recipients and Uninsured Women at Participating Hospitals

Table XII.1:

Barriers to Prenatal Care Cited By Medicaid Recipients and Uninsured Women, by Participating Hospitals (1986-87)

State/ hospital	Community type	Total no. of women	Barriers cited[a] (percent) Logistical/health services 1	2	3	4	5	6	7	8	9	10	21
Totals		1,157	8.82	5.53	16.16	2.68	7.87	8.90	8.64	5.19	11.58	1.73	1.04
Alabama													
Cooper Green	Midsize	35	8.57	5.71	20.00	.	2.86	.	8.57	8.57	2.86	.	.
Huntsville	Midsize	19	.	.	15.79	10.53	21.05	.	.	.	10.53	.	.
Baptist Medical Center	Midsize	22	18.18	4.55	36.36	9.09	45.45	.	9.09	9.09	18.18	.	.
Vaughan Regional Medical Center	Rural	45	11.11	6.67	28.89	11.11	2.22	.	11.11	8.89	6.67	.	.
Edge Memorial	Rural	24	12.50	4.17	37.50	16.67	8.33	.	25.00	8.33	12.50	.	.
California													
Los Angeles County-USC Medical Center	Urban	195	10.26	7.69	13.85	2.56	8.21	17.95	9.74	8.72	17.44	3.59	3.08
Memorial Medical Center	Urban	17	.	5.88	17.65	.	.	5.88	5.88	.	5.88	5.88	.
Kern Medical Center	Midsize	39	5.13	.	30.77	.	5.13	7.69	12.82	2.56	10.26	.	.
Sutter Community	Midsize	26	7.69	.	23.08	.	3.85	7.69	.	3.85	7.69	.	.
El Centro Community	Rural	19	5.26	21.05	15.79	.	5.26	21.05	5.26	10.53	5.26	.	10.53
Ukiah General	Rural	18	.	5.56	27.78	.	16.67	5.56	11.11	.	5.56	.	.
Georgia													
Grady Memorial	Urban	83	13.25	7.23	19.28	.	7.23	4.82	9.64	6.02	3.61	.	.
Georgia Baptist Medical Center	Urban	12	8.33	.	8.33	.	16.67	8.33	8.33	8.33	16.67	.	.
Medical Center (Columbus)	Midsize	26	7.69	3.85	3.85	.	3.85	3.85	7.69	.	19.23	.	.
Memorial Medical Center	Midsize	23	8.70	.	17.39	.	13.04	.	4.35	.	17.39	.	.
Sumter Regional	Rural	23	8.70	4.35	4.35	.	4.35	.	.	4.35	4.35	.	.
Glynn-Brunswick Memorial	Rural	24	12.50	4.17	4.17	.	20.83	12.50	.	.	8.33	.	.
Illinois													
Cook County	Urban	61	16.39	4.92	11.48	4.92	1.64	11.48	13.11	8.20	18.03	13.11	1.64
Ingalls Memorial	Urban	4	.	.	.	.	.	.	25.00	.	25.00	.	.
St. Francis Medical Center	Midsize	14	.	.	.	.	.	.	.	.	7.14	.	.
Methodist Medical Center	Midsize	5	.	.	.	.	.	.	.	.	.	.	.
Rockford Memorial	Midsize	34	.	5.88	11.76	2.94	11.76	8.82	5.88	2.94	5.88	.	.
Memorial Hospital (Carbondale)	Rural	38	5.26	5.26	18.42	7.89	18.42	21.05	.	.	18.42	.	.
Sara Bush Lincoln Health Center	Rural	17	5.88	5.88	17.65	.	11.76	5.88	11.76	.	5.88	.	.

Barriers cited[a] (percent)														
Women's attitudes, beliefs, and experiences										Financing				No problem
11	12	13	14	15	16	17	18	19	20	22	23	24	Other	
6.83	10.72	8.30	24.63	7.09	12.45	8.38	8.47	7.69	3.80	22.39	4.93	6.83	4.41	29.39
2.86	5.71	2.86	25.71	2.86	8.57	2.86	2.86	11.43	2.86	8.57	.	.	.	45.71
5.26	21.05	5.26	36.84	10.53	5.26	5.26	10.53	15.79	.	42.11	10.53	.	5.26	36.84
4.55	.	.	9.09	.	4.55	4.55	4.55	4.55	9.09	40.91	18.18	31.82	13.64	9.09
.	4.44	4.44	26.67	6.67	4.44	6.67	11.11	13.33	6.67	17.78	8.89	4.44	.	37.78
.	.	4.17	20.83	.	4.17	4.17	4.17	12.50	4.17	20.83	.	.	4.17	41.67
11.79	8.21	7.18	26.15	6.15	14.87	11.79	7.69	4.10	3.59	36.41	2.56	5.13	7.18	20.51
11.76	5.88	5.88	23.53	17.65	23.53	11.76	.	.	.	41.18	5.88	29.41	17.65	11.76
15.38	12.82	15.38	23.08	5.13	28.21	7.69	7.69	5.13	5.13	35.90	5.13	17.95	15.38	17.95
3.85	.	.	30.77	.	.	7.69	.	.	3.85	7.69	.	7.69	.	34.62
15.79	10.53	21.05	26.32	5.26	26.32	21.05	5.26	10.53	10.53	36.84	10.53	.	10.53	31.58
11.11	16.67	5.56	16.67	5.56	16.67	.	22.22	11.11	11.11	33.33	.	22.22	11.11	33.33
6.02	8.43	9.64	22.89	7.23	10.84	1.20	3.61	4.82	2.41	16.87	12.05	6.02	3.61	33.73
.	8.33	.	.	.	16.67	.	.	.	.	16.67	.	.	16.67	41.67
.	7.69	11.54	11.54	7.69	11.54	3.85	15.38	11.54	.	7.69	.	.	7.69	38.46
.	21.74	17.39	21.74	8.70	17.39	.	17.39	13.04	.	13.04	.	8.70	.	26.09
.	34.78	13.04	34.78	13.04	13.04	4.35	30.43	21.74	.	17.39	.	8.70	4.35	30.43
4.17	8.33	8.33	16.67	8.33	12.50	.	8.33	4.17	8.33	54.17	8.33	16.67	.	33.33
9.84	16.39	16.39	45.90	8.20	21.31	19.67	13.11	8.20	1.64	31.15	4.92	6.56	3.28	9.84
.	25.00	.	25.00	50.00	.	.	.	.	25.00	.	.	.	.	25.00
.	.	14.29	.	.	.	.	7.14	14.29	.	14.29	.	7.14	7.14	57.14
.	.	.	20.00	.	.	.	.	.	.	.	.	.	.	80.00
.	14.71	8.82	29.41	8.82	8.82	8.82	14.71	11.76	.	14.71	11.76	2.94	2.94	29.41
7.89	10.53	2.63	36.84	2.63	5.26	2.63	10.53	13.16	2.63	15.79	2.63	.	.	23.68
5.88	11.76	5.88	17.65	5.88	5.88	.	5.88	5.88	.	11.76	.	.	5.88	29.41

State/ hospital	Community type	Total no. of women	Barriers cited[a] (percent)										
			Logistical/health services										
			1	2	3	4	5	6	7	8	9	10	21
Maine													
Kennebec Valley Medical Center	Rural	9	.	.	11.11	.	.	11.11	.	.	.	.	.
Eastern Maine Medical Center	Midsize	10	.	.	.	.	.	.	10.00	.	.	.	.
Massachusetts													
Brigham and Women's	Urban	35	8.57	2.86	17.14	2.86	14.29	8.57	2.86	2.86	17.14	2.86	.
Boston City	Urban	16	12.50	12.50	6.25	.	6.25	.	37.50	31.25	12.50	.	.
New York													
Harlem Hospital Center	Urban	43	4.65	16.28	9.30	2.33	2.33	16.28	9.30	.	13.95	6.98	4.65
Columbia-Presbyterian Medical Center	Urban	41	2.44	2.44	2.44	.	.	4.88	14.63	7.32	.	.	2.44
Crouse-Irving Memorial	Midsize	8	25.00	.	12.50	.	.	.	37.50	25.00	12.50	.	.
St. Joseph's	Midsize	8	12.50	.	12.50	.	.	.	12.50	.	25.00	.	.
Children's	Midsize	16	12.50	6.25	25.00	.	12.50	6.25	12.50	18.75	6.25	.	.
Benedictine	Rural	14	.	7.14	.	.	.	28.57	.	.	14.29	.	.
Auburn Memorial	Rural	16	6.25	12.50	18.75	6.25	.	.	18.75	.	12.50	.	.
West Virginia													
Charleston Area Medical Center	Midsize	38	15.79	.	15.79	2.63	13.16	10.53	7.89	.	23.68	.	.
Cabell Huntington	Midsize	25	12.00	.	16.00	4.00	4.00	.	.	.	12.00	.	.
Bluefield Community	Rural	39	7.69	5.13	23.08	2.56	5.13	12.82	.	2.56	5.13	.	.
United Hospital Center	Rural	16	12.50	12.50	31.25	.	6.25	12.50	6.25	.	12.50	.	.

Barriers cited[a] (percent)														
Women's attitudes, beliefs and experiences										Financing				No
11	12	13	14	15	16	17	18	19	20	22	23	24	Other	problem
.	11.11	.	22.22	.	11.11	.	.	.	.	33.33	11.11	.	.	22.22
.	10.00	.	30.00	.	.	20.00	10.00	10.00	.	20.00	10.00	20.00	.	40.00
.	2.86	11.43	17.14	5.71	5.71	11.43	2.86	2.86	8.57	8.57	5.71	11.43	2.86	34.29
6.25	6.25	.	6.25	12.50	37.50	12.50	.	6.25	12.50	6.25	6.25	12.50	.	18.75
9.30	18.60	13.95	25.58	18.60	13.95	9.30	6.98	6.98	4.65	20.93	.	6.98	.	23.26
4.88	24.39	17.07	12.20	19.51	17.07	17.07	14.63	4.88	7.32	9.76	7.32	7.32	4.88	46.34
37.50	37.50	.	25.00	12.50	25.00	62.50	25.00	.	.	.	.	.	25.00	25.00
12.50	12.50	.	12.50	.	25.00	12.50	12.50	12.50	.	.	.	.	.	50.00
12.50	12.50	6.25	25.00	6.25	18.75	18.75	12.50	6.25	12.50	18.75	.	6.25	.	31.25
7.14	7.14	.	14.29	7.14	7.14	.	.	.	.	.	.	.	.	42.86
12.50	25.00	6.25	43.75	12.50	25.00	12.50	25.00	18.75	6.25	31.25	12.50	12.50	.	18.75
2.63	7.89	7.89	28.95	2.63	5.26	2.63	5.26	5.26	.	7.89	5.26	5.26	.	26.32
8.00	4.00	8.00	12.00	4.00	4.00	.	4.00	8.00	.	12.00	4.00	4.00	.	44.00
5.13	7.69	5.13	33.33	5.13	5.13	7.69	7.69	12.82	5.13	12.82	10.26	5.13	2.56	41.03
12.50	12.50	12.50	18.75	6.25	12.50	18.75	.	18.75	6.25	37.50	.	6.25	.	25.00

[a]Key to barriers cited by women:

1. Did not have anyone to take care of other children.
2. Could not miss work or school.
3. Did not have a way to get clinic or doctor's office.
4. No local doctors, midwives, or nurses.
5. Could not get a doctor, midwife, or nurse to see them.
6. Did not know where to go for care.
7. Felt the wait in the doctor's office or clinic was too long.
8. Felt the office hours were not convenient.
9. Could not get an appointment earlier in pregnancy.
10. Cannot speak English very well and could not find anyone who spoke their language.
11. Did not think it was important to see a doctor, nurse, or another medical person earlier or more often.
12. Did not want to think about being pregnant.
13. Had too many other problems to worry about getting care.
14. Did not know that they were pregnant.
15. Not sure that they wanted to have the baby so didn't go to a doctor, midwife, or nurse.
16. Knew what to do since they had been pregnant before.
17. Were a little afraid of medical tests and examinations.
18. Were afraid to find out they were pregnant.
19. Did not want to tell baby's father, parents, or other family members.
20. Did not like the doctor's or nurse's attitudes.
21. Thought they might have problems with the immigration people.
22. Did not have enough money to pay for visits.
23. Not eligible for Medicaid.
24. Had problems with Medicaid.

Table XII.2:

Barriers to Prenatal Care, Cited by Women Who Received Insufficient Care, by Participating Hospital (1986-87)

State/ Hospital	Community type	Total no. of Women	Barriers cited[a] (percent) Logistical/health services 1	2	3	4	5	6	7	8	9	10	21
Totals		726	11.71	6.75	20.25	3.86	9.50	11.16	11.57	6.34	13.50	2.20	1.24
Alabama													
Cooper Green	Midsize	20	10.00	10.00	25.00	.	.	.	15.00	10.00	.	.	.
Huntsville	Midsize	14	.	.	21.43	14.29	21.43	.	.	.	7.14	.	.
Baptist Medical Center	Midsize	18	22.22	5.56	38.89	11.11	44.44	.	11.11	11.11	22.22	.	.
Vaughen Regional Medical Center	Rural	34	14.71	5.88	32.35	11.76	2.94	.	14.71	11.76	8.82	.	.
Edge Memorial	Rural	16	18.75	6.25	56.25	18.75	.	.	31.25	6.25	12.50	.	.
California													
Los Angeles County-USC Medical Center	Urban	148	12.84	8.11	17.57	3.38	10.81	22.30	11.49	9.46	21.62	4.05	2.70
Memorial Medical Center	Urban	11	.	.	.	.	.	9.09	9.09	.	9.09	9.09	.
Kern Medical Center	Midsize	27	3.70	.	40.74	.	7.41	11.11	18.52	3.70	14.81	.	.
Sutter Community	Midsize	13	.	.	23.08	.	.	15.38	.	7.69	.	.	.
El Centro Community	Rural	10	10.00	30.00	10.00	.	10.00	40.00	10.00	20.00	.	.	20.00
Ukiah General	Rural	9	.	11.11	44.44	.	22.22	11.11	22.22	.	.	.	.
Georgia													
Grady Memorial	Urban	61	18.03	9.84	24.59	.	9.84	4.92	9.84	6.56	1.64	.	.
Georgia Baptist Medical Center	Urban	5	20.00	.	20.00	.	40.00	20.00	20.00	.	20.00	.	.
Medical Center (Columbus)	Midsize	17	11.76	5.88	5.88	.	5.88	5.88	11.76	.	17.65	.	.
Memorial Medical Center	Midsize	18	5.56	.	16.67	.	11.11	.	5.56	.	22.22	.	.
Sumter Regional	Rural	11	9.09	9.09	9.09	.	9.09	.	.	9.09	9.09	.	.
Glynn-Brunswick Memorial	Rural	19	15.79	5.26	5.26	.	26.32	15.79	.	.	10.53	.	.
Illinois													
Cook County	Urban	43	23.26	4.65	16.28	6.98	2.33	11.63	13.95	9.30	18.60	13.95	2.33
Ingalls Memorial	Urban	4	.	.	.	.	.	.	25.00	.	25.00	.	.
St. Francis Medical Center	Midsize	8	.	.	.	.	.	.	.	.	12.50	.	.
Rockford Memorial	Midsize	15	.	13.33	20.00	6.67	6.67	13.33	13.33	6.67	13.33	.	.
Memorial Hospital (Carbondale)	Rural	18	11.11	5.56	22.22	16.67	27.78	22.22	.	.	33.33	.	.
Sara Bush Lincoln Health Center	Rural	8	.	.	25.00	.	12.50	.	12.50	.	.	.	.

Barriers cited[a] (percent)														
Women's attitudes, beliefs, and experiences										Financing				No problem
11	12	13	14	15	16	17	18	19	20	22	23	24	Other	
8.68	13.64	11.29	28.37	8.82	16.25	10.19	10.19	10.33	5.51	28.37	5.37	8.82	5.23	17.63
5.00	10.00	5.00	40.00	5.00	15.00	5.00	5.00	20.00	5.00	5.00	.	.	.	25.00
7.14	28.57	7.14	42.86	14.29	7.14	7.14	14.29	21.43	.	50.00	14.29	.	7.14	28.57
5.56	.	.	11.11	.	5.56	5.56	5.56	5.56	11.11	38.89	22.22	27.78	16.67	5.56
.	2.94	5.88	35.29	5.88	5.88	8.82	8.82	11.76	8.82	20.59	8.82	5.88	.	26.47
.	.	6.25	25.00	.	6.25	6.25	6.25	18.75	6.25	25.00	.	.	6.25	31.25
13.51	8.78	3.78	29.05	6.76	14.86	13.51	8.78	4.73	4.73	43.24	2.03	6.08	6.08	10.81
18.18	9.09	.	27.27	27.27	27.27	18.18	.	.	.	63.64	9.09	45.45	18.18	9.09
22.22	18.52	22.22	25.93	7.41	40.74	11.11	11.11	7.41	7.41	48.15	7.41	22.22	14.81	7.41
7.69	.	.	38.46	.	.	15.38	.	.	.	.	.	7.69	.	15.38
20.00	20.00	40.00	30.00	10.00	40.00	30.00	10.00	20.00	20.00	50.00	20.00	.	20.00	10.00
22.22	22.22	11.11	11.11	11.11	11.11	.	22.22	22.22	22.22	44.44	.	33.33	22.22	11.11
6.56	8.20	13.11	22.95	8.20	14.75	1.64	4.92	4.92	1.64	19.67	14.75	6.56	4.92	27.87
.	.	.	.	.	20.00	.	.	.	.	40.00	.	.	20.00	20.00
.	11.76	11.76	17.65	5.88	11.76	.	17.65	17.65	.	11.76	.	.	11.76	35.29
.	27.78	22.22	27.78	11.11	22.22	.	22.22	16.67	.	16.67	.	5.56	.	16.67
.	54.55	18.18	54.55	18.18	27.27	9.09	45.45	45.45	.	18.18	.	18.18	9.09	.
5.26	10.53	10.53	21.05	10.53	15.79	.	10.53	5.26	10.53	68.42	10.53	21.05	.	15.79
11.63	20.93	20.93	44.19	11.63	30.23	18.60	13.95	11.63	2.33	30.23	6.98	9.30	2.33	9.30
.	25.00	.	25.00	50.00	.	.	.	.	25.00	.	.	.	.	25.00
.	.	25.00	.	.	.	.	12.50	25.00	.	25.00	.	12.50	.	37.50
.	26.67	20.00	46.67	20.00	13.33	13.33	26.67	26.67	.	20.00	13.33	.	6.67	6.67
16.67	22.22	5.56	38.89	5.56	.	5.56	11.11	11.11	5.56	27.78	5.56	.	.	5.56
12.50	12.50	.	12.50	.	12.50	.	12.50	12.50	.	12.50	.	.	12.50	37.50

State/ hospital	Community type	Total no. of women	Barriers cited[a] (percent)										
			Logistical/health services										
			1	2	3	4	5	6	7	8	9	10	21
Maine													
Kennebec Valley Medical Center	Rural	2	.	.	.	.	.	.	.	.	.	.	.
Eastern Maine Medical Center	Midsize	4	.	.	.	.	.	.	.	.	.	.	.
Massachusetts													
Brigham and Women's	Urban	14	7.14	.	21.43	.	14.29	.	.	.	21.43	.	.
Boston City	Urban	11	18.18	18.18	9.09	.	9.09	.	45.45	36.36	.	.	.
New York													
Harlem Hospital Center	Urban	34	5.88	17.65	11.76	2.94	2.94	17.65	11.76	.	14.71	8.82	2.94
Columbia-Presbyterian Medical Center	Urban	30	3.33	3.33	3.33	.	.	6.67	20.00	3.33	.	.	3.33
Crouse-Irving Memorial	Midsize	2	50.00	.	.	.	.	.	50.00	50.00	50.00	.	.
St. Joseph's	Midsize	4	.	.	.	.	.	.	25.00	.	25.00	.	.
Children's	Midsize	10	10.00	.	30.00	.	20.00	10.00	20.00	20.00	10.00	.	.
Benedictine	Rural	2	.	.	.	.	.	50.00	.	.	.	.	.
Auburn Memorial	Rural	6	16.67	16.67	50.00	16.67	.	.	16.67	.	.	.	.
West Virginia													
Charleston Area Medical Center	Midsize	25	16.00	.	16.00	4.00	8.00	12.00	8.00	.	20.00	.	.
Cabell Huntington	Midsize	6	16.67	.	.	16.67	16.67	.	.	.	33.33	.	.
Bluefield Community	Rural	20	15.00	5.00	35.00	5.00	5.00	20.00	.	5.00	10.00	.	.
United Hospital Center	Rural	9	22.22	22.22	33.33	.	11.11	11.11	11.11	.	11.11	.	.

Barriers cited[a] (percent)														
Women's attitudes, beliefs, and experiences										Financing				No problem
11	12	13	14	15	16	17	18	19	20	22	23	24	Other	
.	50.00	.	.	.	.	.	.	.	.	.	.	.	.	50.00
.	25.00	.	50.00	.	.	25.00	25.00	25.00	.	25.00	.	25.00	.	25.00
.	.	14.29	28.57	.	.	14.29	.	.	14.29	14.29	7.14	21.43	7.14	14.29
9.09	9.09	.	9.09	18.18	54.55	18.18	.	9.09	18.18	.	.	9.09	.	9.09
8.82	14.71	14.71	26.47	17.65	17.65	11.76	8.82	8.82	5.88	23.53	.	8.82	.	14.71
6.67	33.33	20.00	13.33	23.33	20.00	16.67	16.67	6.67	10.00	13.33	6.67	6.67	6.67	36.67
100.00	100.00	.	.	50.00	100.00	100.00	.	.	.	.	.	.	.	.
25.00	25.00	.	.	.	25.00	25.00	25.00	25.00	.	.	.	.	.	50.00
10.00	20.00	10.00	40.00	.	30.00	20.00	20.00	.	20.00	30.00	.	10.00	.	10.00
50.00	.	.	50.00	.	.	.	.	.	.	.	.	.	.	.
16.67	33.33	16.67	33.33	16.67	33.33	16.67	16.67	16.67	16.67	50.00	16.67	16.67	.	.
.	12.00	8.00	40.00	4.00	4.00	4.00	8.00	8.00	.	4.00	4.00	8.00	.	16.00
.	.	16.67	.	.	16.67	.	.	16.67	.	33.33	.	16.67	.	33.33
.	5.00	5.00	35.00	.	5.00	5.00	5.00	15.00	5.00	5.00	.	5.00	5.00	30.00
11.11	11.11	11.11	11.11	11.11	22.22	22.22	.	33.33	11.11	44.44	.	11.11	.	22.22

Key to barriers cited by women:

1. Did not have anyone to take care of other children.
2. Could not miss work or school.
3. Did not have a way to get clinic or doctor's office.
4. No local doctors, midwives, or nurses.
5. Could not get a doctor, midwife, or nurse to see them.
6. Did not know where to go for care.
7. Felt the wait in the doctor's office or clinic was too long.
8. Felt the office hours were not convenient.
9. Could not get an appointment earlier in pregnancy.
10. Cannot speak English very well and could not find anyone who spoke their language.
11. Did not think it was important to see a doctor, nurse, or another medical person earlier or more often.
12. Did not want to think about being pregnant.
13. Had too many other problems to worry about getting care.
14. Did not know that they were pregnant.
15. Not sure that they wanted to have the baby so didn't go to a doctor, midwife, or nurse.
16. Knew what to do since they had been pregnant before.
17. Were a little afraid of medical tests and examinations.
18. Were afraid to find out they were pregnant.
19. Did not want to tell baby's father, parents, or other family members.
20. Did not like the doctor's or nurse's attitudes.
21. Thought they might have problems with the immigration people.
22. Did not have enough money to pay for visits.
23. Not eligible for Medicaid.
24. Had problems with Medicaid.

Table XII.3:

Most Important Barriers to Prenatal Care for Women Who Obtained Insufficient Care, by Participating Hospital (1986-87)

State/ hospital	Community type	Total no. of Women	Barriers cited[a] (percent) Logistical/health services 1	2	3	4	5	6	7	8	9	10	21
Total		726	4.27	2.07	6.89	0.55	2.48	3.03	2.89	0.28	3.86	0.28	0.14
Alabama													
Cooper Green	Midsize	20	10.00	10.00	15.00	.	.	.	.	.	.	.	.
Huntsville	Midsize	14	.	.	21.43	.	.	.	.	.	.	.	.
Baptist Medical Center	Midsize	18	5.56	5.56	5.56	.	33.33	.	.	.	5.56	.	.
Vaughan Regional Medical Center	Rural	34	8.82	2.94	8.82	2.94	.	.	11.76	.	2.94	.	.
Edge Memorial	Rural	16	.	.	37.50	.	.	.	.	.	.	.	.
California													
Los Angeles County-USC Medical Center	Urban	148	4.73	1.35	4.73	0.68	3.38	6.76	1.35	.	9.46	0.68	0.68
Memorial Medical Center	Urban	11	.	.	.	.	.	9.09	.	.	.	.	.
Kern Medical Center	Midsize	27	.	.	3.70	.	.	.	7.41	.	3.70	.	.
Sutter Community	Midsize	13	.	.	23.08	.	.	15.38	.	.	.	.	.
El Centro Community	Rural	10	.	10.00	.	.	10.00	20.00	.	.	.	.	.
Ukiah General	Rural	9	.	.	11.11	.	.	.	11.11	.	.	.	.
Georgia													
Grady Memorial	Urban	61	6.56	1.64	6.56	.	1.64	3.28	1.64	1.64	1.64	.	.
Georgia Baptist Medical Center	Urban	5	.	.	.	.	20.00	.	.	.	.	.	.
Medical Center (Columbus)	Midsize	17	11.76	5.88	.	.	.	.	5.88	.	5.88	.	.
Memorial Medical Center	Midsize	18	5.56	.	.	.	5.56	.	5.56	.	5.56	.	.
Sumter Regional	Rural	11	.	.	.	.	.	.	.	.	.	.	.
Glynn-Brunswick Memorial	Rural	19	.	.	5.26	.	.	.	.	.	.	.	.
Illinois													
Cook County	Urban	43	11.63	2.33	4.65	.	.	.	2.33	2.33	.	2.33	.
Ingalls Memorial	Urban	4	.	.	.	.	.	.	.	.	.	.	.
St. Francis Medical Center	Midsize	8	.	.	.	.	.	.	.	.	12.50	.	.
Rockford Memorial	Midsize	15	.	6.67	13.33	.	.	.	.	.	6.67	.	.
Memorial Hospital (Carbondale)	Rural	18	.	.	5.56	5.56	11.11	.	.	.	.	.	.
Sara Bush Lincoln Health Center	Rural	8	.	.	12.50	.	.	.	12.50	.	.	.	.

Appendix XII
Barriers to Earlier or More Frequent Prenatal Care Cited by Medicaid Recipients and Uninsured Women at Participating Hospitals

Barriers cited[a] (percent)														
Women's attitudes, beliefs and experiences										Financing				No problem
11	12	13	14	15	16	17	18	19	20	22	23	24	Other	
2.34	1.65	1.79	14.60	2.62	3.44	1.24	2.20	2.75	1.38	16.53	0.28	1.93	2.89	17.63
.	5.00	.	30.00	.	5.00	.	.	.	.	.	.	.	.	25.00
.	.	.	7.14	7.14	.	.	.	.	.	28.57	.	.	7.14	28.57
5.56	.	.	5.56	.	5.56	.	.	5.56	.	16.67	.	.	.	5.56
.	2.94	.	14.71	.	.	.	.	.	.	17.65	.	.	.	26.47
.	.	.	6.25	.	.	.	6.25	.	.	12.50	.	.	6.25	31.25
3.38	.	.	10.81	.	2.03	2.70	2.03	1.35	.	27.03	.	2.03	4.05	10.81
9.09	.	.	.	.	18.18	9.09	.	.	.	27.27	.	9.09	9.09	9.09
7.41	.	3.70	14.81	.	7.41	.	.	.	.	33.33	.	3.70	7.41	7.41
.	.	.	38.46	.	.	7.69	.	.	.	.	.	.	.	15.38
.	.	.	.	10.00	.	.	10.00	.	.	20.00	.	.	10.00	10.00
.	.	.	11.11	11.11	.	.	.	.	.	33.33	.	11.11	.	11.11
1.64	1.64	3.28	14.75	1.64	1.64	.	1.64	1.64	.	13.11	1.64	.	4.92	27.87
.	.	.	.	.	20.00	.	.	.	.	40.00	.	.	.	20.00
.	5.88	.	11.76	.	.	.	.	5.88	.	.	.	.	11.76	35.29
.	11.11	5.56	16.67	5.56	.	.	.	11.11	.	11.11	.	.	.	16.67
.	9.09	.	27.27	9.09	9.09	.	9.09	18.18	.	9.09	.	.	9.09	.
.	.	.	15.79	5.26	.	.	.	.	.	52.63	.	5.26	.	15.79
.	.	4.65	18.60	2.33	11.63	4.65	6.98	.	2.33	11.63	.	2.33	.	9.30
.	.	.	.	50.00	.	.	.	.	25.00	.	.	.	.	25.00
.	.	25.00	.	.	.	.	.	12.50	.	12.50	.	.	.	37.50
.	.	6.67	26.67	6.67	.	.	6.67	.	.	13.33	.	.	6.67	6.67
.	11.11	.	22.22	.	.	.	5.56	5.56	5.56	22.22	.	.	.	5.56
.	.	.	.	.	12.50	.	.	12.50	.	12.50	.	.	.	37.50

State/ hospital	Community type	Total no. of Women	Barriers cited[a] (percent) Logistical/health services 1	2	3	4	5	6	7	8	9	10	21
Maine													
Kennebec Valley Medical Center	Rural	2	.	.	.	.	.	.	.	.	.	.	.
Eastern Maine Medical Center	Midsize	4	.	.	.	.	.	.	.	.	.	.	.
Massachusetts													
Brigham and Women's	Urban	14	7.14	.	.	.	7.14	.	.	.	7.14	.	.
Boston City	Urban	11	18.18	.	.	.	.	.	18.18	.	.	.	.
New York													
Harlem Hospital Center	Urban	34	2.94	11.76	2.94	.	.	5.88	.	.	5.88	.	.
Columbia-Presbyterian Medical Center	Urban	30	.	.	.	.	.	3.33	10.00	.	.	.	.
Crouse-Irving Memorial	Midsize	2	50.00	.	.	.	.	.	.	.	.	.	.
St. Joseph's	Midsize	4	.	.	.	.	.	.	.	.	.	.	.
Children's	Midsize	10	.	.	10.00	.	.	.	10.00	.	.	.	.
Benedictine	Rural	2	.	.	.	.	.	.	.	.	.	.	.
Auburn Memorial	Rural	6	16.67	.	.	.	.	.	.	.	.	.	.
West Virginia													
Charleston Area Medical Center	Midsize	25	.	.	12.00	.	.	4.00	4.00	.	8.00	.	.
Cabell Huntington	Midsize	6	.	.	.	16.67	.	.	.	.	16.67	.	.
Bluefield Community	Rural	20	.	.	25.00	.	.	5.00	.	.	.	.	.
United Hospital Center	Rural	9	.	.	11.11	.	.	.	.	.	.	.	.

Barriers cited[a] (percent)														
Women's attitudes, beliefs, and experiences										Financing				No problem
11	12	13	14	15	16	17	18	19	20	22	23	24	Other	
.	50.00	.	.	.	.	.	.	.	.	.	.	.	.	50.00
.	.	.	25.00	.	.	.	.	25.00	.	.	.	25.00	.	25.00
.	.	7.14	14.29	.	.	7.14	.	.	14.29	.	7.14	7.14	7.14	14.29
9.09	.	.	.	9.09	18.18	.	.	.	18.18	.	.	.	.	9.09
5.88	.	8.82	14.71	5.88	2.94	.	2.94	.	2.94	5.88	.	5.88	.	14.71
.	6.67	.	13.33	13.33	3.33	.	3.33	.	3.33	6.67	.	.	.	36.67
50.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.
25.00	.	.	.	.	.	.	25.00	.	.	.	.	.	.	50.00
10.00	.	.	30.00	.	.	.	10.00	.	.	20.00	.	.	.	10.00
50.00	.	.	50.00	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	33.33	.	.	16.67	.	33.33	.	.	.	.
.	.	.	36.00	4.00	4.00	.	.	8.00	.	4.00	.	.	.	16.00
.	.	.	.	.	.	.	.	.	.	33.33	.	.	.	33.33
.	.	.	25.00	.	.	.	.	5.00	.	.	.	5.00	5.00	30.00
.	.	.	.	.	.	.	.	33.33	11.11	11.11	.	11.11	.	22.22

Key to barriers cited by women:

1. Did not have anyone to take care of other children.
2. Could not miss work or school.
3. Did not have a way to get clinic or doctor's office.
4. No local doctors, midwives, or nurses.
5. Could not get a doctor, midwife, or nurse to see them.
6. Did not know where to go for care.
7. Felt the wait in the doctor's office or clinic was too long.
8. Felt the office hours were not convenient.
9. Could not get an appointment earlier in pregnancy.
10. Cannot speak English very well and could not find anyone who spoke their language.
11. Did not think it was important to see a doctor, nurse, or another medical person earlier or more often.
12. Did not want to think about being pregnant.
13. Had too many other problems to worry about getting care.
14. Did not know that they were pregnant.
15. Not sure that they wanted to have the baby so didn't go to a doctor, midwife, or nurse.
16. Knew what to do since they had been pregnant before.
17. Were a little afraid of medical tests and examinations.
18. Were afraid to find out they were pregnant.
19. Did not want to tell baby's father, parents, or other family members.
20. Did not like the doctor's or nurse's attitudes.
21. Thought they might have problems with the immigration people.
22. Did not have enough money to pay for visits.
23. Not eligible for Medicaid.
24. Had problems with Medicaid.

Appendix XIII

Demographic Data on the Women Interviewed, by Hospital

Data on the characteristics of women interviewed at each of the 39 hospitals participating in the study are presented in tables XIII.1 and XIII.2.

Table XIII.1:

Interviewed Women by Insurance Status, Education, and Place of Most Care for Each Participating Hospital (1986-87)

Figures, except in last column, are percents.

State/ hospital	Insurance status		Education			
	Medicaid	Uninsured	0-8 years	Some high school	Graduated high school	College
Totals	52.29	47.71	14.00	35.44	29.82	20.74
Alabama						
Cooper Green	14.29	85.71	14.29	22.86	42.86	20.00
Huntsville	26.32	73.68	5.26	36.84	15.79	42.11
Baptist Medical Center	50.00	50.00	4.55	40.91	31.82	22.73
Vaughan Regional Medical Center	64.44	35.56	4.44	42.22	33.33	20.00
Edge Memorial	54.17	45.83	.	37.50	41.67	20.83
California						
Los Angeles County-USC Medical Center	5.64	94.36	42.56	24.62	17.95	14.87
Memorial Medical Center	70.59	29.41	.	23.53	47.06	29.41
Kern Medical Center	51.28	48.72	23.08	38.46	25.64	12.82
Sutter Community	96.15	3.85	3.85	11.54	23.08	61.54
El Centro Community	73.68	26.32	15.79	36.84	26.32	21.05
Ukiah General	100.00	.	.	38.89	38.89	22.22
Georgia						
Grady Memorial	60.24	39.76	2.41	39.76	32.53	25.30
Georgia Baptist Medical Center	16.67	83.33	.	16.67	33.33	50.00
Medical Center (Columbus)	42.31	57.69	3.85	42.31	38.46	15.38
Memorial Medical Center	78.26	21.74	8.70	56.52	30.43	4.35
Sumter Regional	60.87	39.13	8.70	56.52	26.09	8.70
Glynn-Brunswick Memorial	41.67	58.33	4.17	41.67	37.50	16.67
Illinois						
Cook County	27.87	72.13	37.70	37.70	18.03	6.56
Ingalls Memorial	100.00	.	.	25.00	50.00	25.00
St. Francis Medical Center	64.29	35.71	7.14	42.86	21.43	28.57
Methodist Medical Center	80.00	20.00	40.00	20.00	.	40.00
Rockford Memorial	55.88	44.12	.	47.06	29.41	23.53
Memorial Hospital (Carbondale)	89.47	10.53	2.63	42.11	39.47	15.79
Sara Bush Lincoln Health Center	76.47	23.53	.	35.29	35.29	29.41

Place of most prenatal care					
Hospital clinic	Local health department	Doctor's office	Midwife service	Combination/ other	Total no.
24.98	34.14	30.86	0.43	7.00	1157
2.86	88.57	5.71	.	2.86	35
.	.	89.47	.	.	19
.	50.00	45.45	.	.	22
.	42.22	55.56	.	2.22	45
.	4.17	91.67	.	.	24
9.74	68.21	11.28	0.51	4.62	195
5.88	.	76.47	5.88	.	17
33.33	2.56	30.77	.	28.21	39
3.85	.	92.31	.	3.85	26
.	5.26	94.74	.	.	19
.	.	94.44	.	5.56	18
56.63	31.33	6.02	.	3.61	83
75.00	8.33	16.67	.	.	12
.	65.38	26.92	.	3.85	26
17.39	21.74	56.52	.	.	23
.	95.65	4.35	.	.	23
.	29.17	62.50	.	.	24
44.26	36.07	6.56	1.64	11.48	61
25.00	.	75.00	.	.	4
50.00	.	35.71	.	14.29	14
60.00	.	40.00	.	.	5
35.29	8.82	50.00	.	5.88	34
5.26	2.63	23.68	.	68.42	38
.	.	94.12	.	5.88	17

State/ hospital	Insurance status		Education			
	Medicaid	Uninsured	0-8 years	Some high school	Graduated high school	College
Totals						
Maine						
Kennebec Valley Medical Center	55.56	44.44	.	11.11	44.44	44.44
Eastern Maine Medical Center	90.00	10.00	.	20.00	70.00	10.00
Massachusetts						
Brigham and Women's	82.86	17.14	20.00	34.29	20.00	25.71
Boston City	62.50	37.50	6.25	43.75	31.25	18.75
New York						
Harlem Hospital Center	69.77	30.23	6.98	46.51	30.23	16.28
Columbia-Presbyterian Medical Center	78.05	21.95	7.32	31.71	29.27	31.71
Crouse-Irving Memorial	100.00	.	.	50.00	37.50	12.50
St. Joseph's	100.00	.	12.50	37.50	12.50	37.50
Children's	93.75	6.25	6.25	25.00	43.75	25.00
Benedictine	64.29	35.71	.	57.14	28.57	14.29
Auburn Memorial	87.50	12.50	6.25	43.75	43.75	6.25
West Virginia						
Charleston Area Medical Center	52.63	47.37	.	36.84	47.37	15.79
Cabell Huntington	44.00	56.00	4.00	32.00	32.00	32.00
Bluefield Community	66.67	33.33	7.69	35.90	41.03	15.38
United Hospital Center	68.75	31.25	6.25	37.50	12.50	43.75

Place of most prenatal care					
Hospital clinic	Local health department	Doctor's office	Midwife service	Combination/ other	Total no.
11.11	33.33	55.56	.	.	9
10.00	30.00	60.00	.	.	10
57.14	40.00	2.86	.	.	35
50.00	37.50	.	12.50	.	16
48.84	41.86	2.33	.	2.33	43
78.05	7.32	7.32	.	2.44	41
62.50	12.50	25.00	.	.	8
75.00	12.50	.	.	12.50	8
25.00	25.00	25.00	.	18.75	16
35.71	21.43	35.71	.	7.14	14
.	75.00	25.00	.	.	16
68.42	10.53	13.16	.	7.89	38
12.00	60.00	24.00	.	4.00	25
25.64	17.95	53.85	.	2.56	39
.	.	81.25	.	18.75	16

Table XIII.2:

Interviewed Women By Maternal Age, Race, and Birth Weight for Each Participating Hospital (1986-87)

Figures, except for last column, are percents.

State/ hospital	Maternal age					
	< 18	18-19	20-24	25-29	30-34	35+
Total	10.46	15.56	37.34	22.13	10.20	4.32
Alabama						
Cooper Green	8.57	8.57	48.57	25.71	8.57	.
Huntsville	10.53	26.32	47.37	10.53	5.26	.
Baptist Medical Center	9.09	13.64	27.27	22.73	13.64	13.64
Vaughan Regional Medical Center	15.56	22.22	31.11	17.78	6.67	6.67
Edge Memorial	20.83	8.33	16.67	37.50	12.50	4.17
California						
Los Angeles County-USC Medical Center	7.18	11.79	30.77	29.74	14.87	5.64
Memorial Medical Center	.	17.65	35.29	23.53	23.53	.
Kern Medical Center	7.69	10.26	41.03	30.77	5.13	5.13
Sutter Community	11.54	3.85	46.15	26.92	11.54	.
El Centro Community	10.53	5.26	42.11	21.05	10.53	10.53
Ukiah General	5.56	16.67	44.44	27.78	.	5.56
Georgia						
Grady Memorial	15.66	9.64	40.96	20.48	8.43	4.82
Georgia Baptist Medical Center	.	8.33	41.67	33.33	.	16.67
Medical Center (Columbus)	23.08	7.69	46.15	7.69	11.54	3.85
Memorial Medical Center	21.74	13.04	30.43	8.70	17.39	8.70
Sumter Regional	17.39	26.09	34.78	17.39	4.35	.
Glynn-Brunswick Memorial	8.33	29.17	33.33	29.17	.	.
Illinois						
Cook County	29.51	16.39	27.87	16.39	8.20	1.64
Ingalls Memorial	.	25.00	25.00	50.00	.	.
St. Francis Medical Center	.	42.86	28.57	7.14	14.29	7.14
Methodist Medical Center	.	20.00	20.00	40.00	20.00	.
Rockford Memorial	8.82	26.47	41.18	14.71	8.82	.
Memorial Hospital (Carbondale)	13.16	23.68	44.74	10.53	5.26	2.63
Sara Bush Lincoln Health Center	5.88	29.41	41.18	17.65	5.88	.

Race				Birth weight		
White	Black	Hispanic	Other	Not low	Very low or low	Total
36.39	33.36	28.78	1.47	88.50	11.50	1157
40.00	57.14	.	2.86	80.00	20.00	35
47.37	47.37	.	5.26	89.47	10.53	19
18.18	81.82	.	.	81.82	18.18	22
13.33	86.67	.	.	93.33	6.67	45
37.50	62.50	.	.	100.00	.	24
2.05	5.13	90.77	2.05	90.77	9.23	195
52.94	17.65	29.41	.	70.59	29.41	17
23.08	12.82	61.54	2.56	92.31	7.69	39
69.23	7.69	3.85	19.23	80.77	19.23	26
.	5.26	94.74	.	100.00	.	19
77.78	.	5.56	16.67	88.89	11.11	18
21.69	77.11	.	1.20	87.95	12.05	83
66.67	33.33	.	.	100.00	.	12
46.15	53.85	.	.	92.31	7.69	26
17.39	78.26	4.35	.	78.26	21.74	23
13.04	82.61	4.35	.	91.30	8.70	23
58.33	41.67	.	.	91.67	8.33	24
1.64	47.54	50.82	.	95.08	4.92	61
.	100.00	.	.	100.00	.	4
78.57	21.43	.	.	78.57	21.43	14
80.00	20.00	.	.	100.00	.	5
64.71	32.35	2.94	.	76.47	23.53	34
71.05	28.95	.	.	84.21	15.79	38
88.24	11.76	.	.	82.35	17.65	17

State/ hospital	Maternal age					
	< 18	18-19	20-24	25-29	30-34	35+
Maine						
Kennebec Valley Medical Center	.	.	33.33	33.33	.	33.33
Eastern Maine Medical Center	10.00	10.00	50.00	10.00	20.00	.
Massachusetts						
Brigham and Women's	.	17.14	42.86	14.29	22.86	2.86
Boston City	12.50	12.50	37.50	37.50	.	.
New York						
Harlem Hospital Center	4.65	13.95	30.23	32.56	9.30	9.30
Columbia-Presbyterian Medical Center	2.44	19.51	41.46	14.63	17.07	4.88
Crouse-Irving Memorial	12.50	12.50	25.00	25.00	25.00	.
St. Joseph's	.	12.50	62.50	12.50	.	12.50
Children's	12.50	18.75	18.75	31.25	18.75	.
Benedictine	7.14	21.43	28.57	21.43	14.29	7.14
Auburn Memorial	12.50	12.50	37.50	31.25	6.25	.
West Virginia						
Charleston Area Medical Center	5.26	28.95	39.47	15.79	7.89	2.63
Cabell Huntington	8.00	12.00	64.00	8.00	4.00	4.00
Bluefield Community	12.82	7.69	56.41	15.38	5.13	2.56
United Hospital Center	6.25	25.00	31.25	31.25	6.25	.

Race				Birth weight		
White	Black	Hispanic	Other	Not low	Very low or low	Total
100.00	.	.	.	88.89	11.11	9
100.00	.	.	.	80.00	20.00	10
28.57	22.86	45.71	2.86	91.43	8.57	35
12.50	68.75	18.75	.	68.75	31.25	16
2.33	46.51	51.16	.	86.05	13.95	43
4.88	21.95	73.17	.	87.80	12.20	41
75.00	25.00	.	.	62.50	37.50	8
100.00	.	.	.	100.00	.	8
25.00	68.75	6.25	.	87.50	12.50	16
85.71	7.14	7.14	.	92.86	7.14	14
100.00	.	.	.	93.75	6.25	16
89.47	10.53	.	.	89.47	10.53	38
96.00	4.00	.	.	92.00	8.00	25
84.62	15.38	.	.	92.31	7.69	39
93.75	6.25	.	.	87.50	12.50	16

State and Local Programs to Improve Access to Care

Through various programs, states and localities we visited are attempting to address some of the barriers women face in obtaining prenatal care. The barriers most often cited by the women we interviewed included financial obstacles, particularly a lack of money to pay for prenatal care; educational and/or attitudinal barriers, particularly not knowing that they were pregnant; and logistical problems, particularly lack of transportation. Some programs being carried out to address these barriers in the states we visited are discussed below. These programs represent only examples of programs in these states; they do not represent all such programs being carried out. Further, we did not attempt to evaluate any of the programs; therefore, we make no judgments as to whether any particular program is more effective than any other.

Programs Providing Comprehensive Services That Address Lack of Money

Illinois Prenatal Care Projects

The Illinois Department of Public Health provides subsidized prenatal care through a variety of programs, including prenatal care projects, funded by state funds as well as the MCH block grant. The projects serve the medically indigent who are not eligible for Medicaid and provide comprehensive prenatal care services including social and nutrition, health education, outreach, and follow-up services. Providers are reimbursed at the same rate as Medicaid providers, but according to a Department of Public Health official, the paperwork is less and the turnaround time for reimbursement quicker, diminishing the reluctance of providers to treat low-income women. During the 6-year life of this program, statistics have shown the projects to be providing care to women in need of subsidized prenatal care. The incidence of low birth weight has decreased to 8 percent, which is low for this high-risk population; missed prenatal appointments have steadily decreased from 15 percent the first year to 11 percent the sixth year; and the percentage of women beginning care in the first trimester has increased from 29 to 49.

Illinois Families With a Future

In Illinois, the objective of Families with a Future is to reduce perinatal risk by providing comprehensive and coordinated services in 31 areas with high infant mortality throughout the state. The program includes case management, outreach, education, and support services as well as medical care.

Illinois Problem Pregnancy Grants

Illinois authorizes problem pregnancy grants to provide and coordinate medical, educational, and social services to women at risk of initial or repeat problem pregnancies. All women with problem pregnancies are eligible for services, with those ineligible for Medicaid given priority. Services include prenatal care, nutrition and social services, employment and vocational counseling, special services to enable pregnant teens to continue their education, residential care for pregnant teens, outreach, and follow-up.

Illinois Parents Too Soon

Parents Too Soon, a coordinated statewide program in Illinois, is designed to reduce teenage pregnancy and mitigate the health risks for pregnant teens. Through 125 community-based projects, this program addresses the medical and social needs of teenagers, including prenatal care and awareness education. According to state evaluations, to date the success of the program has been measured by a decrease in low birth weight for its clients, a reduction in the incidence of infant mortality among program participants, and a lower percentage of repeat teen pregnancies.

Massachusetts Healthy Start Program

Massachusetts operates a state-funded program that provides comprehensive prenatal care to low-income women who (1) have no health insurance, (2) are not eligible for Medicaid, and (3) have incomes no greater than 185 percent of the federal poverty level. Healthy Start pays for up to 14 prenatal visits, delivery, hospitalization for the mother and the newborn, and one postpartum visit. In addition, it provides support services, including nutrition services, prenatal and parenting classes, counseling, family planning, laboratory and pharmacy services related to pregnancy, and interpreter services.

New York Prenatal Care and Nutrition Program

New York operates a state-funded program that provides comprehensive prenatal care to low-income women who (1) have no health insurance, (2) are not eligible for Medicaid, and (3) have incomes no greater than 185 percent of the federal poverty level. The Prenatal Care and

Nutrition Program pays for prenatal visits, laboratory work, diagnostic testing, social services, nutritional and genetic counseling, and a postpartum visit. In addition, providers are required to establish linkages with local hospitals to ensure that a patient has a prearranged site for delivery.

New York Maternal and Infant Care Projects

The Maternal and Infant Care Projects, operated only in New York City and Erie County by the respective departments of health and funded by the state through the MCH block grant, provide comprehensive pre- and postnatal service to low-income women where low birth weight and infant mortality rates are excessive. To be eligible for these projects, women must have incomes no greater than 185 percent of the poverty level and be either uninsured or on Medicaid.

Georgia Certified Nurse-Midwifery Program

Through the Certified Nurse-Midwifery Program, Georgia provides prenatal and obstetrical services for low-risk maternity patients in 7 of its 19 health districts. To qualify for the nurse-midwifery program, the patient must be ineligible for Medicaid, be low risk, and have an income of no more than 200 percent of the federal poverty level. Care is provided by about 20 nurse-midwives through local public health departments or through subcontract with local hospitals. The program, begun in 1973, is funded entirely by the state.

Georgia Maternal High Risk Pregnancy Program

In Georgia, the Maternal High Risk Pregnancy Program is a statewide, state-funded program that offers care for medically indigent, high-risk pregnant women who are not eligible for Medicaid. It offers a financial assistance package for use by health districts in providing high-risk prenatal care, hospital delivery, and newborn care to women and their infants who are at significant medical risk.

West Virginia Maternity Services Program

West Virginia's Maternity Services Program serves low-income women, including some who are Medicaid-eligible. Through the use of MCH block grant funds and state monies, 48 community-based providers offer prenatal care to uninsured women whose income is at or below 150 percent of the federal poverty level. Where patient volume permits, this program also serves Medicaid recipients in areas of the state where the Medicaid card is not accepted for prenatal care. Prenatal care offered through this program includes pregnancy testing and/or confirmation;

clinical services such as the initial workup, laboratory testing and counseling; prenatal education classes; delivery and hospitalization; and follow-up services, including a postpartum/family planning visit and referral of the child for pediatric health services. The prenatal care is based on a program protocol that adheres to ACOG minimal standards of obstetrical care.

California Community-Based Comprehensive Perinatal Services Program

California's statewide Community-Based Comprehensive Perinatal Services Program, supported by the MCH block grant, is a community-based system of comprehensive perinatal care providing care and services to under-served, low-income pregnant women and their infants. The program is a result of a state-sponsored initiative—the OB Access Pilot Project (see p. 60). The perinatal services funded under the program include medical examinations, nutritional counseling, health education, psychosocial services for pregnant women, and some follow-up care for the mother and infant. In addition, support is provided to contractors for community education and outreach, consultation, evaluation, in-service training for perinatal care staff, and the development of local directories of available services for pregnant women.

The program was operating in all five California counties that we visited during our review. Two of the program contractors—the Maternal and Child Outreach Program and the American River Hospital Teen Clinic—placed emphasis on a specific population, and one in El Centro offered extensive outreach services.

The Maternal and Child Outreach Program in Kern County, California, which places primary emphasis on the identification and follow-up of high-risk pregnancies and infants, uses a case manager approach for monitoring individual care plans for all obstetric patients and provides nutritional assessment and monitoring, as well as psychosocial assessment and counseling. Daytime prenatal and parenting classes, an integral part of the Maternal and Child Outreach Program, are coordinated with the patient's prenatal visits to facilitate class attendance, and classes are held in both English and Spanish. From the inception of the program in 1978 to 1984, the average infant birth weight for Maternal and Child Outreach Program patients rose from 6.9 to 7.8 pounds; the average number of prenatal visits increased from 4 to 8.9; and the average week of first visit dropped from 22 to 16.5 gestation weeks.

The American River Hospital Teen Clinic in Sacramento County, California, operates an Adolescent Maternity Project under a Community-

Based Comprehensive Perinatal Services Program grant and provides a complete program to teens seeking contraceptive services, as well as prenatal and postpartum care. The clinic provides van transportation to appointments from the local schools and has an on-site Special Supplemental Food Program for Women, Infants, and Children. To encourage adolescents to seek early prenatal care, it maintains an outreach and networking program in the community, which includes presentations at local schools and community agencies, attendance at local school health fairs, and sponsorship of an annual teen health fair to promote teen wellness and make teens and their families more aware of available health and social services.

The Economic Opportunities Commission, the Community-Based Comprehensive Perinatal Services Program contractor in El Centro, not only provides women in Imperial County with comprehensive perinatal services, including medical, nutritional, psychosocial, and educational services, but also operates the only prenatal outreach program in the county. Outreach activities include (1) making presentations to community groups regarding the services offered to pregnant women and the importance of prenatal care and (2) participating in various local fairs, at which bilingual literature and brochures describing the program's services are distributed.

Many of the Economic Opportunity Commission's outreach activities have been directed at the teenage population. For example, when participating in high school health fairs during fiscal years 1984 and 1985, the program presented skits dramatizing teenage pregnancy problems and solutions and distributed a bilingual brochure containing information about physical and medical conditions pertinent to teenagers, including pregnancy, and listing phone numbers teens can call to get more information. Before fiscal year 1984, statistics indicated that pregnant teenagers who went to Imperial County's Economic Opportunity Commission sought prenatal care for the first time at 23 weeks gestation. After the fairs were completed, pregnant teenagers came for their first prenatal visit at an average of 13 weeks gestation.

California Adolescent Family Life Program

California's Adolescent Family Life Program is a 3-year demonstration of a case management/networking method for providing comprehensive coordinated services to pregnant adolescents and teen parents. Funded in part through the MCH block grant program, the goals of the program are to (1) reduce the rate or incidence of poor pregnancy outcomes in women aged 17 and under, (2) improve the health, education, and

employability of pregnant adolescents and school-age parents, and (3) assure adequate health care for their babies. The service system, which involves participation of school districts and public and private health and social service providers, includes case management services and outreach to pregnant adolescents, young fathers and fathers-to-be, and their families. Services provided by the program include pregnancy testing; education on parenthood; primary and preventive medical services; pediatric health care for infants and children of adolescent participants; nutrition assessment and counseling; health education; psychosocial services; infant and child care placement; and vocational, academic, and educational counseling.

Charles Henderson Child Health Center, Troy, Alabama

The Charles Henderson Child Health Center in Troy, Alabama, operates two teenage pregnancy programs. To reduce the number of teen pregnancies in Pike County and ensure the best possible outcome for mother and child when pregnancies occur, the Adolescent Family Life program provides

- prenatal and child medical care, including familiarization with labor and delivery, birth control, venereal disease, nutrition, and child care, as well as regularly scheduled examinations at a weekly teenage pregnancy clinic;
- educational and vocational services, with two school systems in Pike County participating in a program to help mothers obtain at least a high school education; and
- counseling to help the teen in her relationships with parents and peers and in preparation for delivery.

Care and counseling continue after delivery with medical check-ups for mother and child and in weekly teen/tot clinics that combine pediatric care with continued education in child development for the mother. The program is funded through the federal adolescent family life demonstration projects and patient fees, which are based on a sliding scale. No one is denied service because of inability to pay.

Under the Rural Health Initiative Consortium, the Troy child health center manages adolescent clinics located in four Alabama counties. The program provides prenatal care through family practitioners at family care centers and program physicians at public health maternity clinics. Further, high-risk patients from sites within the consortium are referred to an obstetrician. Fees for this program also are based upon a sliding scale, with no one denied services because of inability to pay.

Programs That Provide Outreach, Information, and Support to Address Educational and Attitudinal Barriers to Care

Illinois Service Directories

The Illinois Public Health Association published eight regional directories designed as guides to maternal and child health services. Distributed through the local health departments, the guides include such information as the service provided, charges, areas served, and any restrictions to the service.

Alabama Storkline Program

Alabama operates the Storkline program, a toll-free telephone service to advise pregnant women in Alabama of available services in their locale.

New York City Pregnancy Healthline

In February 1985, the New York City Department of Health initiated the Pregnancy Healthline, a city-wide telephone service that provides information and referrals to callers on a wide range of reproductive health issues, including prenatal care. Its staff make direct appointments for prenatal care at over 70 health care facilities in New York City. Staff follow up on callers who do not keep appointments to assist them in overcoming barriers to obtaining prenatal care.

Perinatal Center at State University of New York

The Perinatal Center at State University of New York Health Science Center at Syracuse offers various prenatal services, including several that provide education and referral to pregnant women. The Center developed and published a directory of 88 services for pregnant women in Onondaga County. Also, in association with the Onondaga County Health Department, it operates the Pregnancy Confirmation Assessment Referral Education Program (Pregnancy CARE Program). The purpose of this program, established in 1984, is to reduce the incidence of low birth-weight infants by (1) promoting early prenatal care and (2) intensifying care for women found to be at risk of having a low birth-weight

infant. The Pregnancy CARE Program has three satellite clinics in Syracuse that (1) provide pregnancy testing and physical examinations; (2) provide prenatal education; (3) make appointments for continuing pregnancy care; (4) transfer records from the satellite clinic to continuing care sites; and (5) make referrals to public health nurses, the Special Supplemental Food Program for Women, Infants, and Children, Medicaid, or other sources of funding.

California March of Dimes

The March of Dimes launched a media campaign called Mommy Don't nationwide and in Los Angeles in November 1986. Its goal is to raise public awareness on the importance of health during pregnancy. Through media coverage and the distribution of brochures, the campaign emphasizes the dangers of smoking or taking drugs and alcohol while pregnant and the importance of prenatal care. In addition, in Los Angeles the Healthy Mothers, Healthy Babies Coalition, an informal association of more than 30 professional, voluntary, and governmental organizations convened by the March of Dimes, was established to foster education efforts through collaborative activities and sharing of information and resources. An example of a collaborative effort is the Parent Education Program in the Hispanic Community to Improve Maternal/Infant Health, which is jointly sponsored by the Healthy Mothers, Healthy Babies Coalition, the Mexican-American Opportunity Foundation, and the March of Dimes. The program's purpose is to inform the Hispanic community of the need for and the role of prenatal care in preventing birth defects. It consists of staff and parent education at the Mexican-American Opportunity Foundation Child Care Centers in Los Angeles. Speakers are brought into the centers during scheduled parent education sessions to provide information on prenatal care, nutrition, alcohol and drugs during pregnancy, genetics, sexually transmitted diseases, and newborn health. The project has reached 450 parents in the last year.

Massachusetts Outreach and Education Program

In Massachusetts, the fiscal year 1986 budget provided $100,000 to inform women about factors that produce healthy babies, particularly the importance of early, continuous comprehensive prenatal care. One of the campaign's primary objectives is to encourage pregnant women to enroll in the Healthy Start Program (see p. 167). According to a state official, all materials and strategies are being designed to ensure that their message reaches high-risk groups, including minorities and adolescents.

The Godparent Project

The Godparent project, sponsored by the Alabama Cooperative Extension Service in Auburn, is designed to link pregnant teenagers with adults they can trust to help the teenagers through their pregnancy and into parenthood. The Godparent is responsible for helping the teenager find and get to medical care during pregnancy, encouraging her to stay in school and not have additional children, and acting as a supportive friend and advisor during this crisis period.

The Rural Alabama Infant Health Project

The Rural Alabama Infant Health Project, funded through a Ford Foundation grant in cooperation with the University of Alabama and West Alabama Health Services, Inc., is an outreach program offered to all indigent expectant mothers living in Greene, Hale, and Sumter counties. It provides complete health care for expectant mothers and infants, assistance for expecting mothers in developing parenting and child development skills, and a network of support using West Alabama Services' medical staff, other agencies, and home visitors. The prenatal care program includes:

- First-time mother entitlement to services of a home visitor and participation in a mothers' support group. The home visitation component consists of community women who help the pregnant women get into the health care system and counsel them. Home visits are made every 2 weeks during pregnancy.
- A tracking system and educational class series that are combined with the patients' regularly scheduled prenatal visits with the physician. This program is devised so that clinical services such as nutrition, education, family planning, social work, mental health, and dentistry are available to the patient at one visit.
- A system for referring women to the State Department of Health's Special Supplemental Food Program for Women, Infants, and Children by using prearranged referral procedures.

The Maternal and Infant Health Outreach Worker Program

The Maternal and Infant Health Outreach Worker Program, a community-based, health intervention program administered by the Center for Health Services at Vanderbilt University, Nashville, Tennessee, is being carried out in five rural, economically disadvantaged communities, two of them located in West Virginia. The project is designed to serve women who are at risk for problem pregnancies because of low income, few community resources, and high degrees of personal stress. Typical service recipients are young women with low incomes, most of whom have less than high school educations and many of whom live in dilapidated

housing. Through the efforts of lay outreach workers, participants are encouraged to obtain prenatal care and receive basic instruction about health care during pregnancy. Participants are visited monthly in their homes by these workers; through the visits, participants are provided with information, emotional support and links to services. Preliminary evaluation data collected in 1984, 2 years after the program began, indicate that participants are more likely than a comparison group to receive prenatal care, attend childbirth preparation classes, and use prenatal vitamins. Specifically, 100 percent of the participants received prenatal care compared with 92 percent of the comparison group. Similarly, 98 percent of the participants used prenatal vitamins as opposed to 90 percent of the comparison group. Further, while only slightly over one fifth of the comparison group attended childbirth classes, over one third of the program participants did so. While the sample size was not large enough to develop statistically significant data on birth outcomes, preliminary data showed slightly fewer stillbirths and low birth-weight infants among the program participants in contrast to the comparison group.

Programs That Address Transportation Barriers

Sacramento County Public Health Department

In 1978/79, the Sacramento County (California) Public Health Department centralized its Asian refugee medical services at one clinic to maintain continuity of care for the refugee population. The clinic staff, realizing that the primary health need of the Asian population it served was prenatal care, established a referral service for pregnant Asian women in the county. Working with a local obstetrician, the clinic agreed to provide a translator and transportation for its pregnant patients and referral to this local physician for prenatal care. The clinic offered this service until March 1987, at which time it discontinued the program because the need had decreased; other local obstetricians had begun seeing these Asian patients and had hired their own translators. However, the clinic still provides transportation for refugees who are new to the area on an as-needed basis.

Consolidated Tribal Health Project

Another California program that addresses transportation barriers is administered by the Consolidated Tribal Health Project, the largest health care provider for Native Americans in Mendocino County. The project receives funding from HHS' Indian Health Services to cover medical care for Native Americans who are not Medicaid beneficiaries. The project does not provide prenatal care, but refers all its pregnant patients to the Ukiah OB-GYN Medical Group for prenatal care. The project provides transportation to and from prenatal visits, and its support staff visit pregnant women at home to check on their health and encourage them to go to their prenatal care check-ups. In addition, the project's nutritionist visits pregnant women at their homes and dispenses prenatal vitamins.

Rural Pediatric Program

A local initiative in the Bangor, Maine, area also addresses transportation barriers. The Rural Pediatric Program at Eastern Maine Medical Center covers prenatal care and medical expenses for children in rural areas within a 95-mile radius. Two vans, equipped as medical offices, visit each site once a month. According to the center's medical director, this program allows patients to receive care in a community setting, regardless of their ability to pay. The program has established no eligibility requirements and no one is denied care.

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